

# Likorall 240 / 242 / 243 / 250

## Service Manual

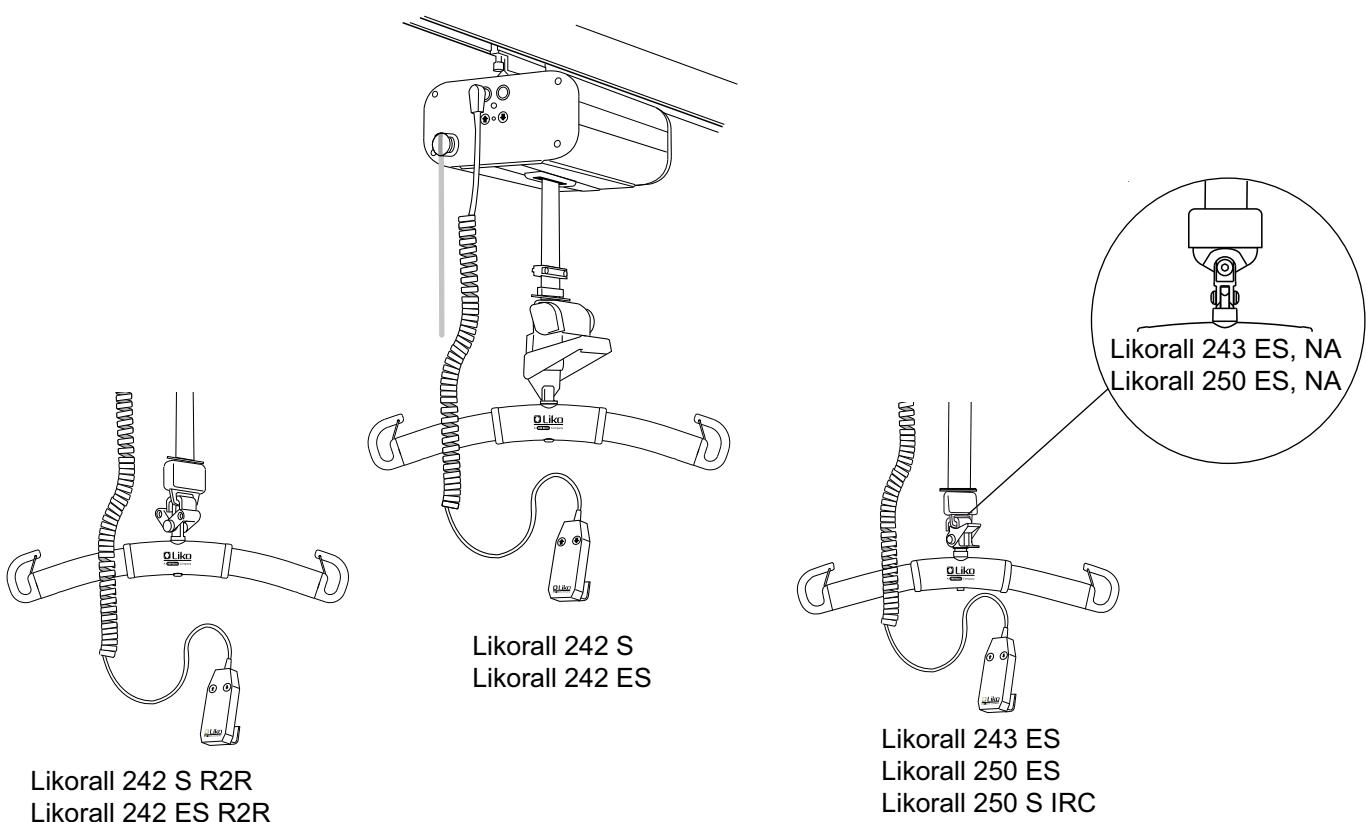
English

3EN200405-02  
2010-08-16

Proj: 1099

### Applies to the following models:

Likorall 240 natural / white	Prod. No. 3120001-3121617
Likorall 242 ES	Prod. No. 3122005-3122006 / NA
Likorall 242 ES R2R	Prod. No. 3122007-3122008 / NA
Likorall 242 S	Prod. No. 3122009-3122010 / NA
Likorall 242 S R2R	Prod. No. 3122011-3122012 / NA
Likorall 243 ES, natural	Prod. No. 3123001 / NA
Likorall 243 ES, white	Prod. No. 3123002 / NA
Likorall 250 ES, natural	Prod. No. 3122501 / NA
Likorall 250 ES, white	Prod. No. 3122502 / NA
Likorall 250 S, IRC	Prod. No. 3124050





## Table of Contents

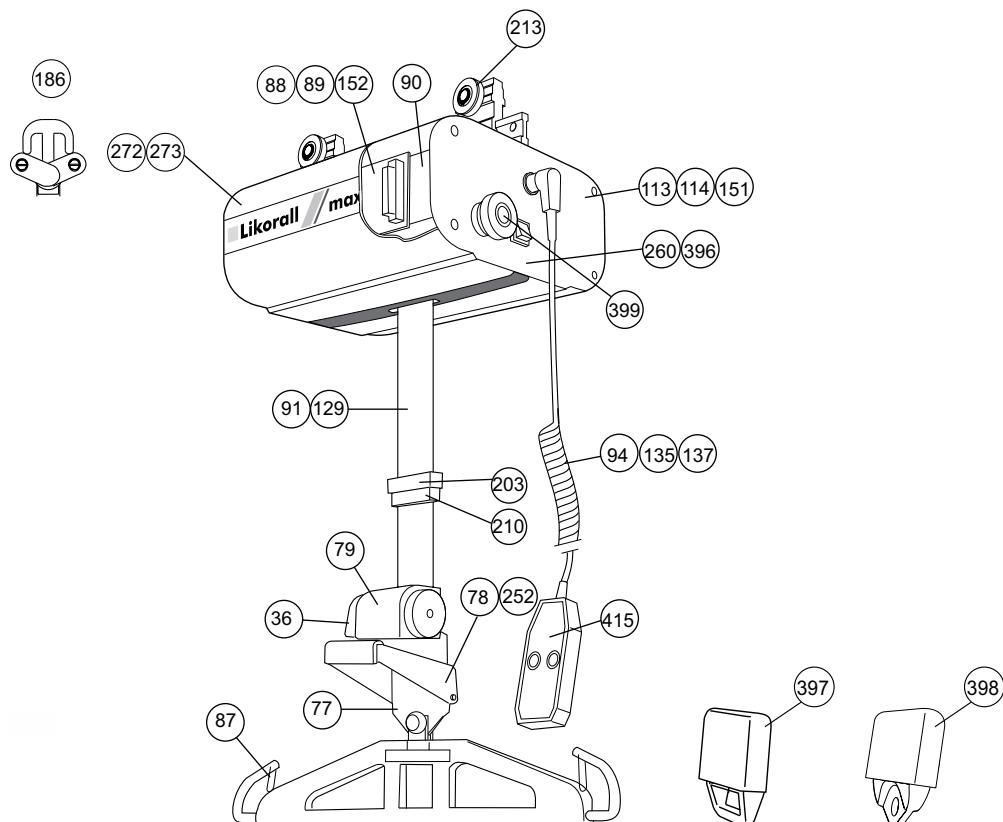
### Likorall 240, 242, 243, 250

	<u>Position</u>	<u>Ref. No.</u>	<u>Page</u>
Table of contents .....	1.0 .....	3	
Spare Parts Position.....	2.0 .....	5	
Technical Data .....	3.0 .....	8	
Troubleshooting .....	4.0 .....	9	
Spare Parts data (Spare Parts / Likorall model).....	5.0 .....	10	
Spare Parts list (Spare Parts information).....	5.0 .....	12	
Spring Magazine.....	36 .....	5.36.1 .....	17
Emergency Lowering Device.....	77 .....	5.77.1 .....	18
Body/Handle set for Emergency Lowering Device .....	78 .....	5.78.1 .....	19
Plastic Housing.....	79 .....	5.79.1 .....	20
Safety Latch.....	87 .....	5.87.1 .....	22
Actuator Restoration set LR 240 .....	88 .....	5.88.1 .....	23
Electronic Card LR 240 .....	89 .....	5.89.1 .....	24
Battery 2,6Ah/12V .....	90 .....	5.90.1 .....	25
Lift Strap Likorall.....	91 .....	5.91.1 .....	26
Cable for Hand control with Connecting Plug .....	94 .....	5.94.1 .....	28
End Cover set with Squeeze Protection Black .....	113 .....	5.113.1 .....	29
End Cover set with Squeeze Protection Grey .....	114 .....	5.114.1 .....	30
Lift Strap Likorall R2R.....	129 .....	5.129.1 .....	31
Hand Control LR 2 buttons .....	135 .....	5.135.1 .....	32
Hand Control LR with extra long cable .....	137 .....	5.137.1 .....	33
Actuator Restoration set LR 242 .....	151 .....	5.151.1 .....	34
Electronic Card LR 242 .....	152 .....	5.132.1 .....	36
Hook R2R.....	186 .....	5.186.1 .....	37
Strap Stop.....	203 .....	5.203.1 .....	38
Electronic Card with Cover ES .....	204 .....	5.204.1 .....	39
Movable Strap Stop, 10 pce .....	210 .....	5.210.1 .....	40
Plastic Wheel with bearing .....	213 .....	5.213.1 .....	41
Electronic Card with Cover S.....	241 .....	5.241.1 .....	42
Body/Handle set for Emergency Lowering Device .....	252 .....	5.252.1 .....	43
Electronic Card with Cover, ES .....	259 .....	5.259.1 .....	45
Limit Switch to Squeeze Protection .....	260 .....	5.260.1 .....	46
Electronic Card with Cover 242ES (from S/N 423745)...	261 .....	5.261.1 .....	48
Electronic Card with Cover 242S (from S/N 262603)....	262 .....	5.262.1 .....	48
Safety Latch Universal Sling bar .....	264 .....	5.264.1 .....	49
Lift Strap LR 243.....	267 .....	5.267.1 .....	50
Electrical Motor LR 240 .....	272 .....	5.272.1 .....	52
Electrical Motor LR 242 .....	273 .....	5.273.1 .....	54
Cable f hand control LR242 with connecting plug 8-pol ..	282 .....	5.282.1 .....	56
Restoration set Limiting switch .....	283 .....	5.283.1 .....	57
Lift strap LR242 S,ES R2R.....	296 .....	5.296.1 .....	59
Safety Latch, composite .....	311 .....	5.311.1 .....	61
Fuse LR 12,5 A, 10 pce .....	396 .....	5.396.1 .....	62
Q-link .....	397 .....	5.397.1 .....	63
Lift strap joint .....	398 .....	5.398.1 .....	65
Emergency stop Mk2.....	399 .....	5.399.1 .....	67
Key pad Hand control LR 250 S IRC .....	415 .....	5.415.1 .....	68
Electronic card with cover LR 250 S IRC .....	430 .....	5.430.1 .....	69
Fuse 12 A.....	431 .....	5.431.1 .....	70
Periodic Inspection .....		6.0 .....	71
Preventative Maintenance .....		7.0 .....	75
Product Changes.....		8.0 .....	79



## Spare Parts Position

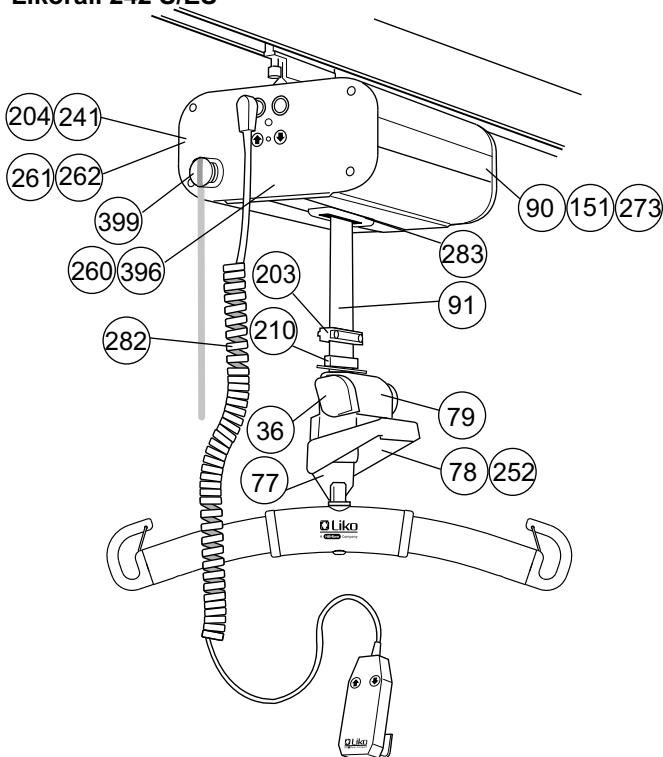
PROD. NO.	PRODUCT	PROD. NO.	PRODUCT
3120001-3120999	Likorall 240	3122001	Likorall 242
3121607	Likorall 240 R2R	3122002	Likorall 242, white
3126017	Likorall 240 R2R, white	3122003	Likorall 242 R2R
		3122004	Likorall 242 R2R, white



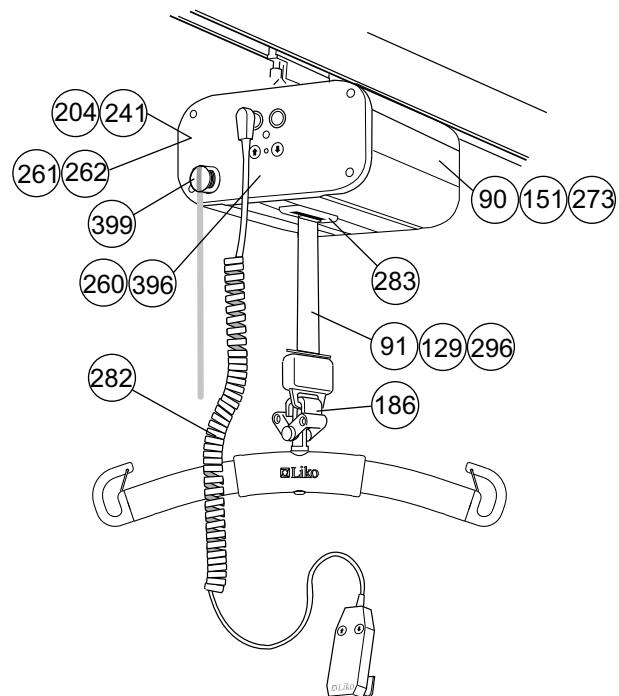
## Spare Parts Position

PROD. NO.	PRODUCT	PROD. NO.	PRODUCT
3122005	Likorall 242 ES	3122007	Likorall 242 ES R2R
3122006	Likorall 242 ES, white	3122008	Likorall 242 ES R2R, white
3122009	Likorall 242 S	3122011	Likorall 242 S R2R
3122010	Likorall 242 S, white	3122012	Likorall 242 S R2R, white

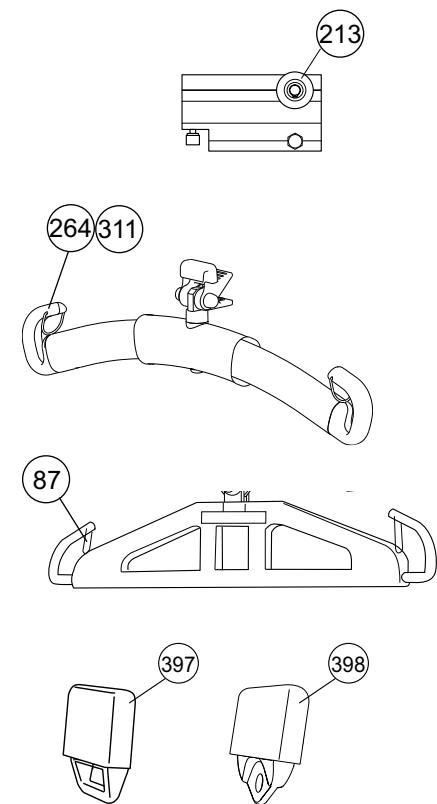
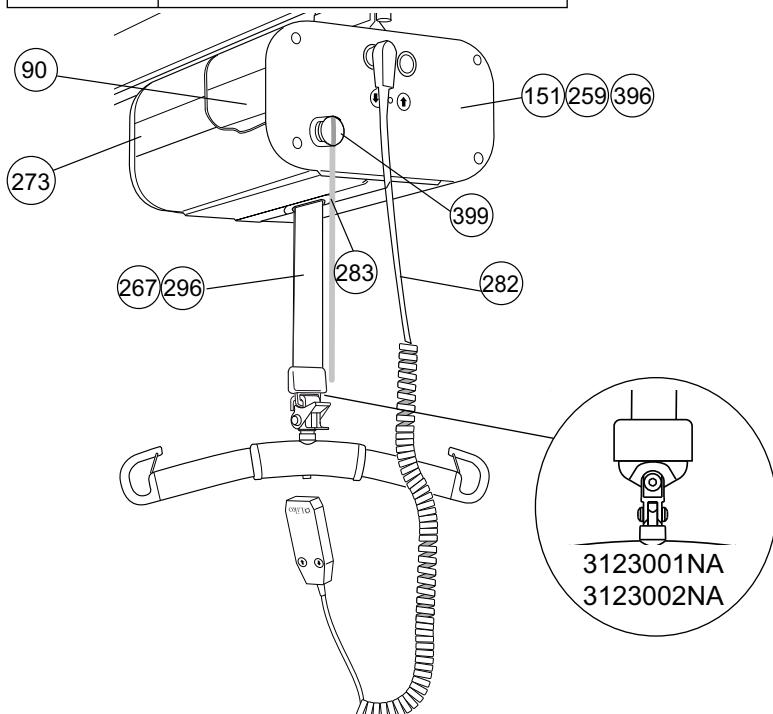
Likorall 242 S/ES



Likorall 242 S/ES R2R

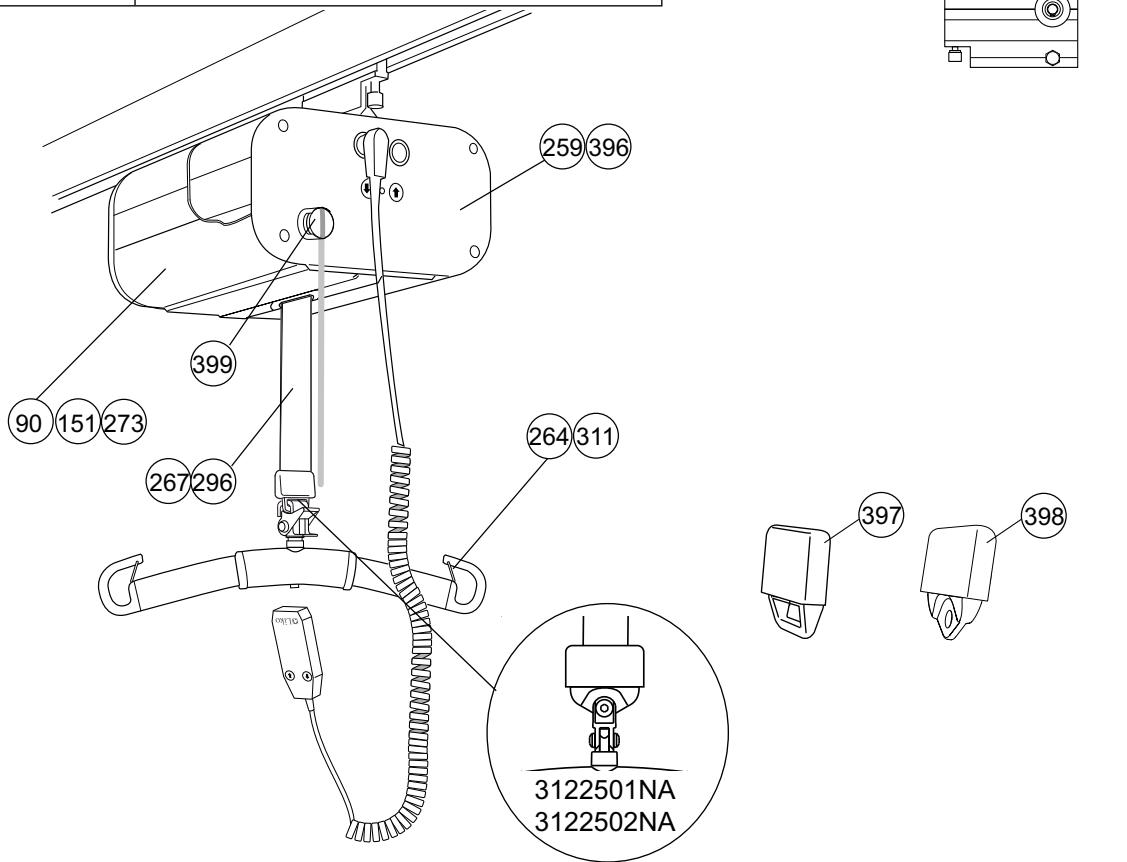


PROD. NO.	PRODUCT
3123001	Likorall 243 ES
3123002	Likorall 243 ES, white

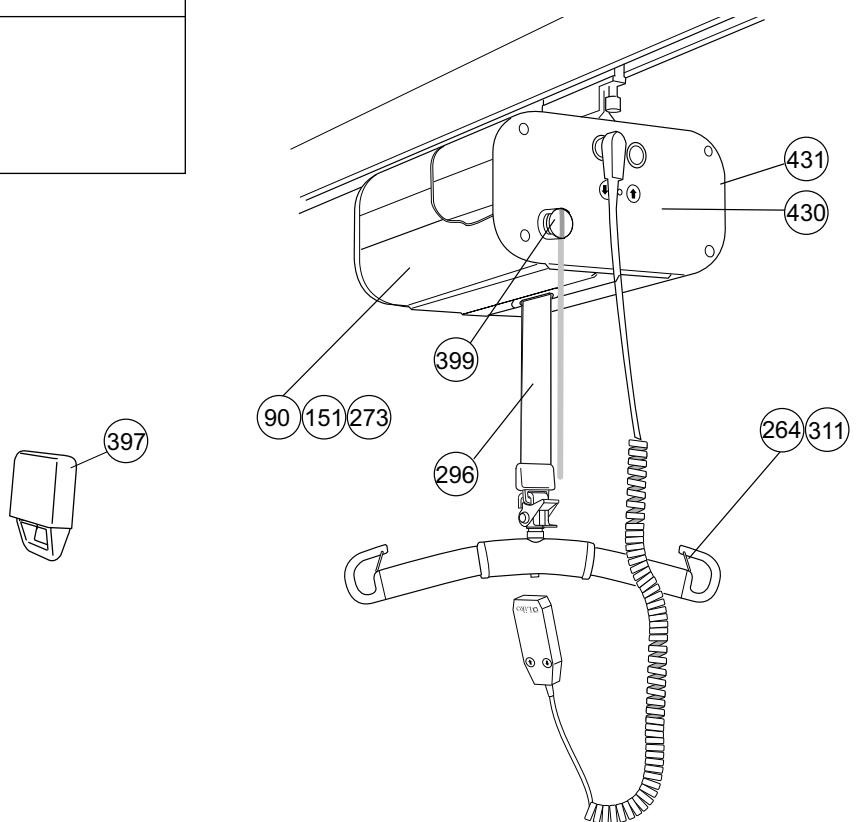


## Spare Parts Position

PROD. NO.	PRODUCT
3122501	Likorall 250 ES
3122502	Likorall 250 ES, white



PROD. NO.	PRODUCT
3124050	Likorall 250 S IRC

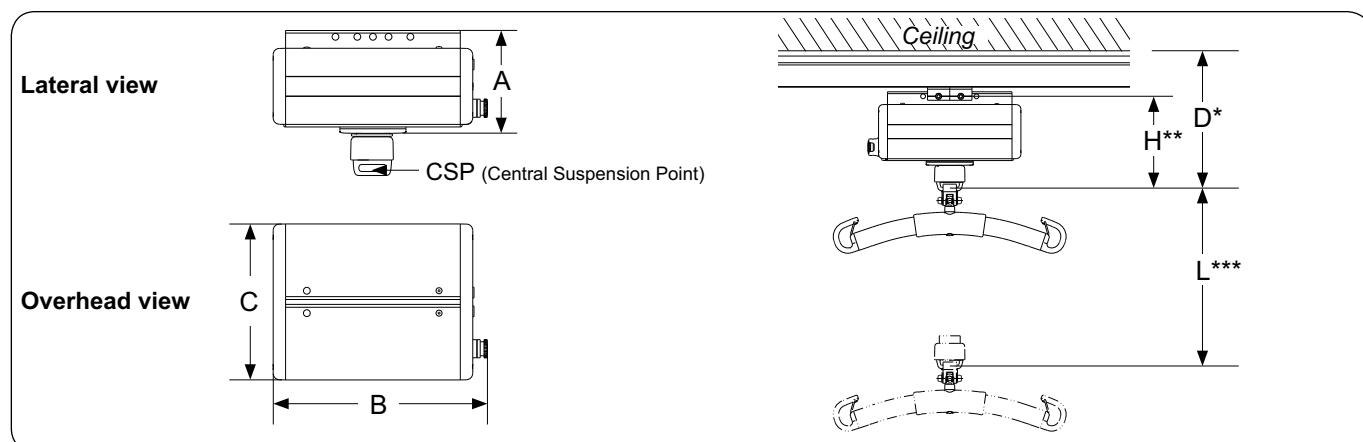


## Technical Data

<b>Maximum load:</b>	Likorall 242: 200 kg (440 lbs) Likorall 243: 230 kg (507 lbs) Likorall 250: 250 kg (550 lbs)	<b>Emergency lowering device:</b>	Mechanical: Likorall 242 Electrical: Likorall 242 R2R Likorall 243 Likorall 250
<b>Batteries:</b>	2 x 12 V 2.6 Ah. Valve-regulated lead-acid gel-type batteries. New batteries are provided by the supplier.	<b>Intermittent operation:</b>	Int. Op 10/90, active operation max 0.5 min.
<b>Battery charger:</b>	SMP CC-10-43-24; 100-240 V AC, 40-60 Hz, max 600 mA IRC ( <i>In-Rail Charging</i> ): CH01 FW7218M/24; 100-240 V AC, 50-60 Hz, max 500 mA	<b>Sound level:</b>	49 dB
<b>Lifting speed:</b>	50 mm/s (2 inch./s)	<b>Protection class hand control:</b>	IP 43
<b>Lifting interval:</b>	2000 mm (77.8 inch.) (242 vertically adjustable)	<b>Operating forces of controls:</b>	5N
<b>Electrical data:</b>	24 V, 12 A		
<b>Lift motor weight:</b>	Likorall 242 13.0 kg (28.6 lbs) Likorall 242 R2R 13.2 kg (29 lbs) Likorall 243 12.6 kg (27.7 lbs) Likorall 250 12.6 kg (27.7 lbs)		

Likorall is equipped with a SFS (Single Fault Safety) safety drum. This patented safety design provides protection against uncontrolled lowering. The lift strap has a tenfold safety.

## Measurements



Measurements in mm.

A	B	C	D*	H**	L***
165	340	250	293	210 (models: 242 R2R, 243, 250)	335 (models: 242)

Measurements in inch.

A	B	C	D*	H**	L***
6.49	13.38	9.84	11.53	8.67 (models: 242 R2R, 243, 250)	13.18 (models: 242)

\* Minimum distance from ceiling to CSP at maximum lifting height.

\*\* Built-in dimension: the distance between the attachment point for the lift unit on the carriage and the CSP at maximum lifting height.

\*\*\* Lifting interval: the distance between maximum lifting height and minimum lifting height measured in CSP.

## Troubleshooting

**The lift doesn't work**



1. Check to ensure that the emergency stop button is not pressed in.
2. Check that the hand control is correctly connected.
3. Charge the battery.
4. *If the lift still does not work properly, please contact Liko.*

**A repeated signal can be heard from the lift**



1. Charge the battery immediately.
2. *If the lift still does not work properly, please contact Liko.*

**The lift stops in the high position**



1. Check to ensure that the emergency stop button is not pressed in.
2. Check that the hand control is correctly connected.
3. Use the selected mechanical or electrical emergency lowering device to lower the patient onto a firm surface.
4. Charge the battery.
5. *If the lift still does not work properly, please contact Liko.*

**The lift does not achieve maximum lifting capacity**



1. Charge the battery.
2. *If the lift still does not work properly, please contact Liko.*

**You hear unusual sounds**



*Please contact Liko.*

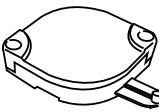
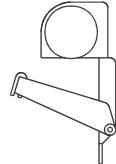
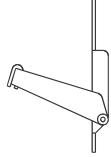
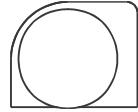
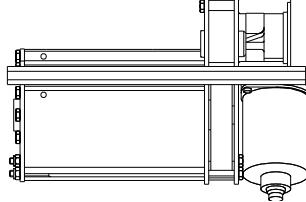
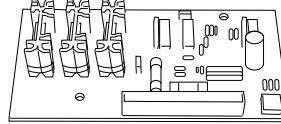
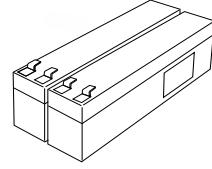
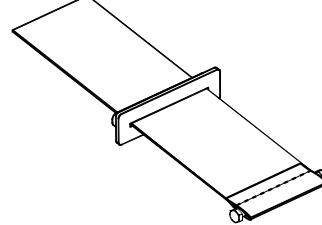
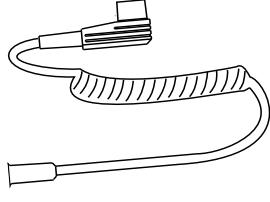
# Likorall - Spare Parts data

			Likorall, model:							
PROD. NO.	POS. NO.	NAME	200	240 240 R2R	242 242 R2R	242 ES 242 ES R2R	242 S 242 S R2R	243 ES	250 ES	250 S IRC
20090041	36	Spring Magazine		x	x	x	x			
31190006	77	Emergency Lowering Device		x	x	x	x			
31190007	78	Body/Handle set for Emergency Low. Device		x	x	x	x			
31190008	79	Plastic Housing		x	x	x	x			
31190018	87	Safety Latch		x	x	x	x			
31290005	88	Actuator Restoration set LR 240	x							
31290006	89	Electronic Card LR 240		x	x					
31290007	90	Battery 2,6 Ah/12 V	x	x	x	x	x	x	x	x
31290011	91	Lift Strap Likorall		x	x	x	x			
31290014	94	Cable for Hand control with Connecting Plug LR24		x	x					
31290052	113	End Cover set with Squeeze Protection Black, for traverse		x	x					
31290053	114	End Cover set with Squeeze Protection Grey, for traverse		x	x					
31290028	129	Lift Strap Likorall R2R		x	x	x	x			
3126031	135	Hand control with cable		x	x					
3126033	137	Hand control with extra long cable 2-Button		x	x					
31290054	151	Actuator Restoration set LR 242	x	x	x	x	x	x	x	x
31290055	152	Electronic Card LR 242			x					
31290056	186	Hook R2R		x	x	x	x			
31290057	203	Strap Stop		x	x	x	x			
31290058	204	Electronic Card with Cover ES				x				
31290059	210	Movable Strap Stop		x	x	x	x			
31290060	213	Plastic Wheel with Bearing	x	x	x	x	x	x	x	x
31290062	241	Electronic card with Cover S					x			
31190021	252	Body/Handle set for Emerg. Low. Device (Stainless steel)		x	x	x	x			
31290063	259	Electronic Card with Cover 243 ES						x	x	
31290064	260	Limit Switch to Squeeze Protection		x	x	x	x			
31290065	261	Electronic Card with Cover 242ES				x				
31290066	262	Electronic Card with Cover 242S					x			

# Likorall - Spare Parts data

PROD. NO.	POS. NO.	NAME	Likorall, model:							
			200	240 240 R2R	242 242 R2R	242 ES 242 ES R2R	242 S 242 S R2R	243 ES	250 ES	250 S IRC
31590011	264	Safety Latch Universal Sling bar	x			x	x	x	x	x
31290067	267	Lift Strap LR 243 ES				x	x	x	x	
31290068	272	Electrical Motor LR 240		x						
31290069	273	Electrical Motor LR 242	x		x	x	x	x	x	x
31290070	282	Cable for hand control LR242S/ES w. conn. plug 8-pol				x	x	x		
31390007	283	Restoration set Limiting switch				x (ES)	x (S)			
31290071	296	Lift Strap LR R2R S, ES				x	x	x	x	x
31590014	311	Safety Latch, composite	x			x	x	x	x	x
31290073	337	Electronic card w cover LR 200	x							
31290074	338	Lift Strap LR 200	x							
31290075	339	Emergency Low.Device LR 200	x							
31290076	340	Hand control LR 200	x							
31290077	341	Hand control hook LR 200	x							
31390009	367	Fuse 10A	x							
21090025	368	Charger CH01	x							
31290079	396	Fuse LR 12,5 A		x	x	x	x	x	x	
31590005	397	Q-link	x	x	x	x	x	x	x	
31590025	398	Lift strap joint		x	x	x	x	x	x	x
31290080	399	Emergency Stop Mk2	x	x	x	x	x	x	x	x
21090038	415	Key pad Hand control 2-buttons		x	x					
31290085	430	Gable LR 250 S IRC								x
31290086	431	Fuse 12 A								x

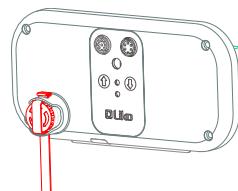
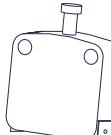
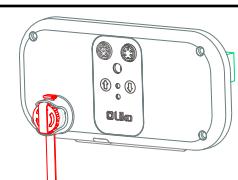
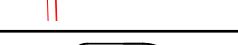
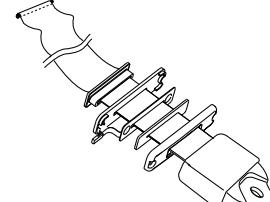
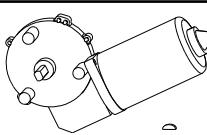
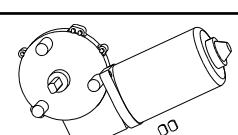
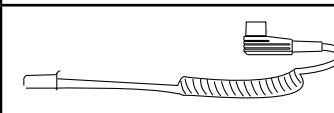
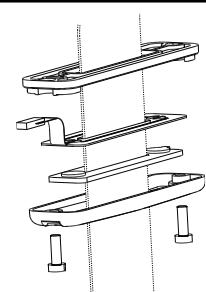
## Spare Parts List

Likorall					
PROD. NO.	POS. NO.	NAME	UNIT		
20090041	36	Spring Magazine	pce		
31190006	77	Emergency Lowering Device	pce		
31190007	78	Body/Handle set for Emergency, Lowering Device	pce		
31190008	79	Plastic Housing	pce		
31190018	87	Safety Latch	pair		
31290005	88	Actuator Restoration set LR 240	pce		
31290006	89	Electronic Card LR 240	pce		
31290007	90	Battery 2,6 Ah/12 V	pair		
31290011	91	Lift Strap Likorall	pce		
31290014	94	Cable for Handcontrol with Connecting Plug LR24	pce		

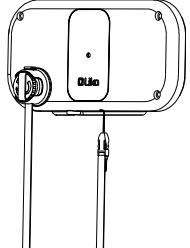
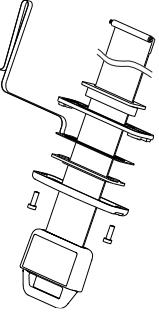
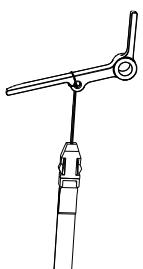
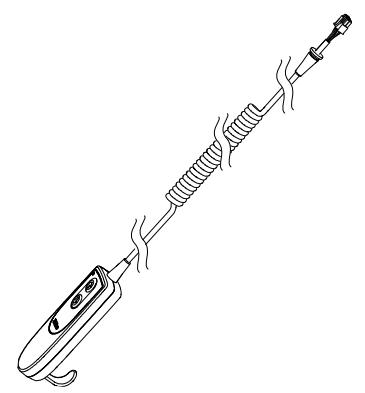
## Spare Parts List

<b>Likorall</b>					
PROD. NO.	POS. NO.	NAME	UNIT		
31290052	113	End Cover set with Squeeze Protection Black	set		
31290053	114	End Cover set with Squeeze Protection Grey	set		
31290028	129	Lift Strap Likorall R2R (242ES to S/N 423744) (242S to S/N 262602)	pce		
3126031	135	Hand Control LR 2 buttons (for operating lifting motion LR240/242 R2R)	pce		
3126033	137	Hand Control LR with extra long cable (for operating lifting motion LR240/242 R2R)	pce		
31290054	151	Actuator Restoration set LR 242	pce		
31290055	152	Electronic Card LR 242	pce		
31290056	186	Hook R2R	pce		
31290057	203	Strap Stop	pce		
31290058	204	Electronic Card with Cover 242 ES (to S/N 423744)	pce		
31290059	210	Movable Strap Stop, 10 pce	set		
31290060	213	Plastic Wheel with Bearing	pair		
31290062	241	Electronic Card with Cover 242 S (to S/N 262602)	pce		

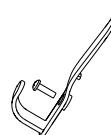
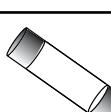
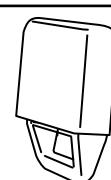
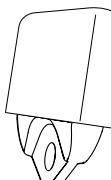
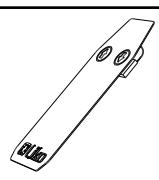
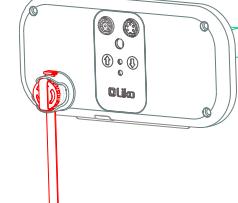
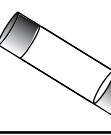
## Spare Parts List

Likorall					
PROD. NO.	POS. NO.	NAME	UNIT		
31190021	252	Body/Handle set for Emergency Lowering Device (Stainless steel)	pce		
31290063	259	Electronic Card with Cover 243 ES	pce		
31290064	260	Limit Switch to Squeeze Protection Likorall 242 ES up to S/N 423704 Likorall 242 S up to S/N 260602	pce		
31290065	261	Electronic Card with Cover 242 ES from S/N 423745	pce		
31290066	262	Electronic Card with Cover 242 S from S/N 262603	pce		
31590011	264	Safety Latch universal	pair		
31290067	267	Lift Strap Likorall (including Limiting switch) 242 S from S/N 262603 242 ES from S/N 423745 243 ES 250 ES <b>Only for fixed sling bars!</b>	pce		
31290068	272	Electrical Motor LR 240	pce		
31290069	273	Electrical Motor LR 242	pce		
31290070	282	Cable f hand control LR 242 S,ES with connecting plug 8-pol	pce		
31390007	283	Restoration set Limiting switch <b>⚠ Fits only with liftstrap assembled with mechanical emergency lowering.</b>	set		

## Spare Parts List

Likorall				
PROD. NO.	POS. NO.	NAME	UNIT	
31290071	296	Liftstrap LR R2R S, ES (including Limiting switch) 242 ES from S/N 423745 242 S from S/N 262603 243 ES 250 ES <b>Fits with quick release hook!</b>	pce	
31590014	311	Safety Latch, composite (Fits Sling bar from S/N 1221691)	pair	
31290073	337	Electronic card with cover LR 200	pce	
31290074	338	Lift Strap LR 200	pce	
31290075	339	Emergency Lowering Device LR 200	pce	
31290076	340	Hand control LR 200	pce	

## Spare Parts List

Likorall				
PROD. NO.	POS. NO.	NAME	UNIT	
31290077	341	Hand control hook LR 200	pce	
31390009	367	Fuse 10A, 10 pce	set	
21090025	368	Charger CH01	pce	
31290079	396	Fuse LR 12,5 A, 10 pce	set	
31590005	397	Q-link	set	
31590025	398	Lift strap joint	set	
31290080	399	Emergency Stop Mk2	pce	
21090038	415	Key pad Hand Control 2-buttons	pce	
31290085	430	Gable LR 250 S IRC	pce	
31290086	431	Fuse 12 A, 10 pce	set	

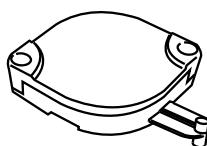
**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 20090041

3SE630214-04  
2010-05-04

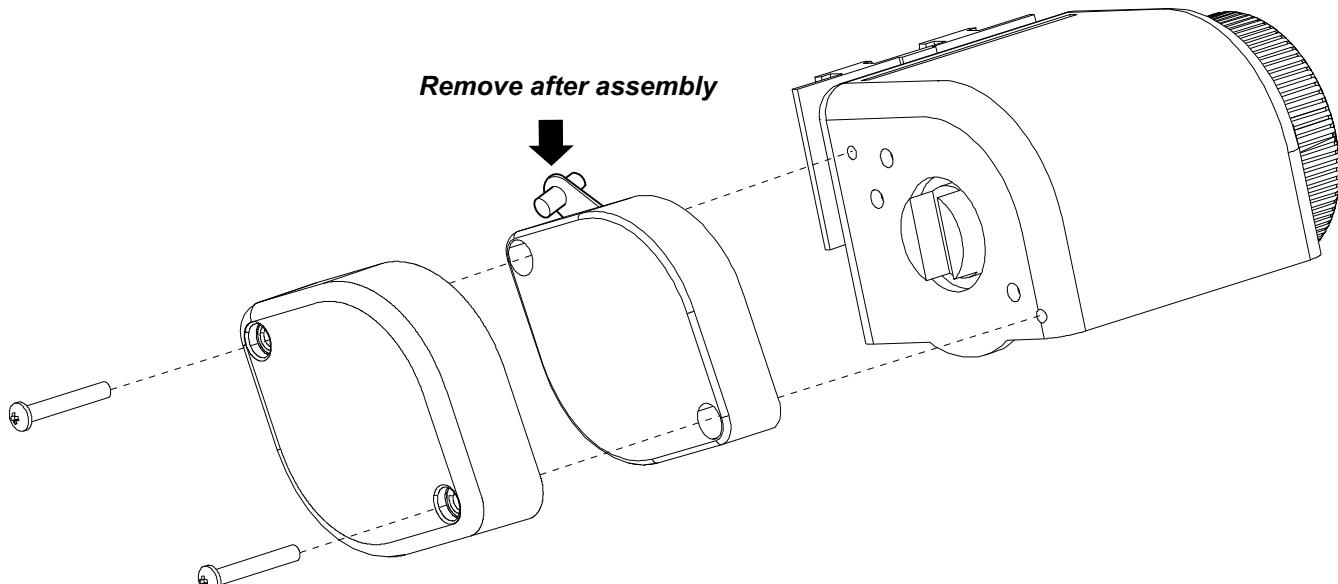
**Contains:**  
Spring magazine

**Qty:**  
1



**Fits:**  
Golvo 7000/7007 (all models)  
Golvo 8000/8008 (all models)  
Masterlift 2200, 2300  
Likorall 240, 242, 242S, 242ES

Tools required:



**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Contains:**  
Emergency Lowering device      **Qty:**  
1

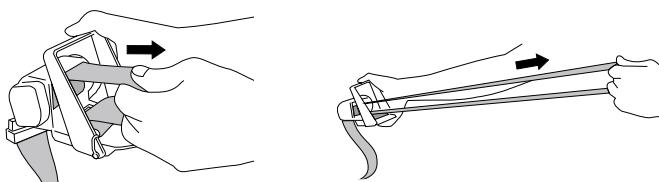
**Fits:**  
Masterlift 2200  
Masterlift 2300  
Likorall 240/240 R2R  
Likorall 242/242 R2R  
Likorall 242ES/242ES R2R  
Likorall 242S/242S R2R

## Assembly Instruction

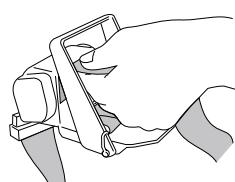
### Monteringsanvisning

Prod. No. 31190006

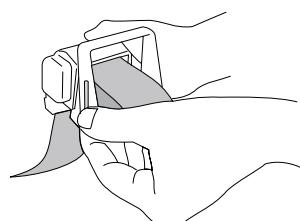
3SE640290-03  
2009-06-30



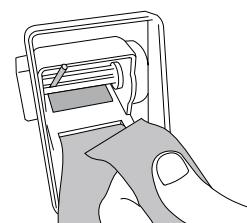
1. Pull the strap all the way out.



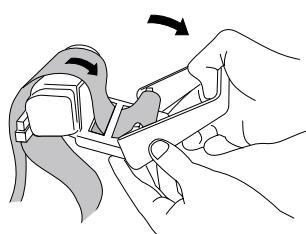
2. Hold the springloaded wheel and release the strap by removing the pin.



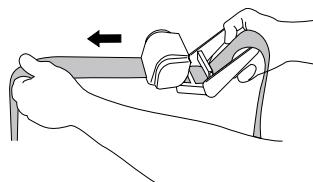
3. Remove the pin. Do not let go of the springloaded wheel, since the tension will release.



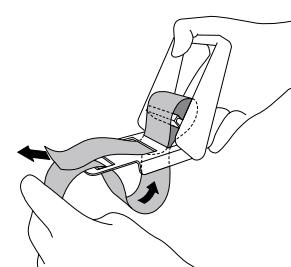
4. Use the pin to lock the axle where the strap was mounted.



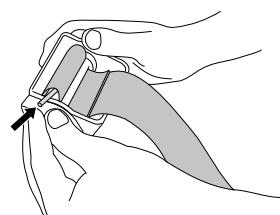
5. Push the emergency lowering handle down and pull the strap a way.



6. Pull the rest of the strap out and remove the plastic housing.

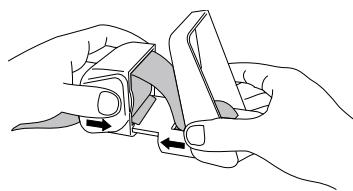


7. Mount the new strap through the plastic housing with the red mark towards the plastic housing and then as shown above.

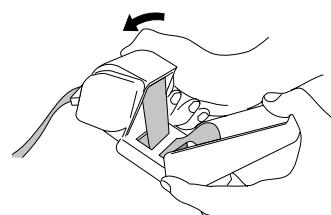


8. Mount the strap through the slot in the axle and the same way back.

**Note!** The axle has two different sides. Place the pin as shown to lock the strap. Do not let go of the springloaded wheel, since the tension will release.



9. Push the plastic housing on to the strap joint.



10. Roll up the strap until the red mark reaches the plastic housing.

#### **NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Contains:**

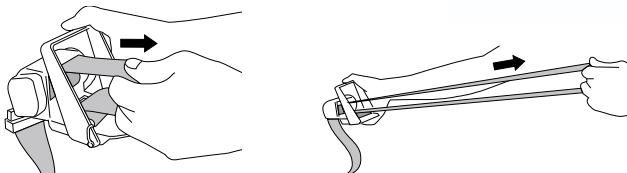
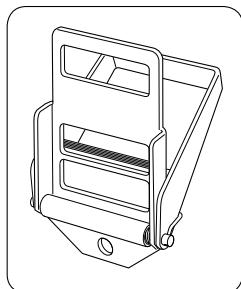
Plate frames  
 Axelstop Left emerg.  
 Axelstop right emerg.  
 Emergency lowering Handle  
 Tube 10x12 L=60 Alu. Emer  
 Pin 6x30 emerg.  
 Torsion Spring Right  
 Torsion Spring Left  
 Friction profile

**Qty:** **Fits:**

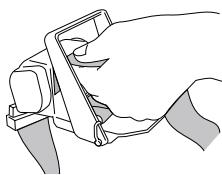
1 Masterlift 2200  
 1 Masterlift 2300  
 1 Likorall 240/240 R2R  
 1 Likorall 242/242 R2R  
 1 Likorall 242ES/242ES R2R  
 2 Likorall 242S/242S R2R  
 1

**Assembly Instruction**  
**Monteringsanvisning**

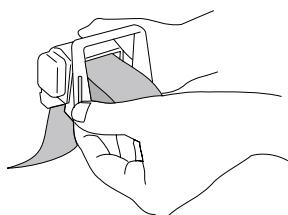
Prod. No. 31190007

3SE630286-02  
2009-06-30

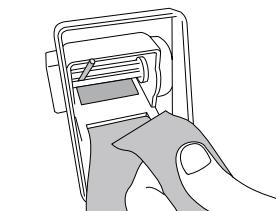
1. Pull the strap all the way out.



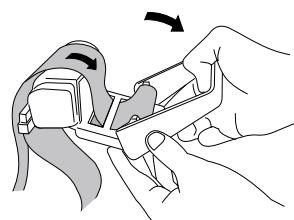
2. Hold the springloaded wheel and release the strap by removing the pin.



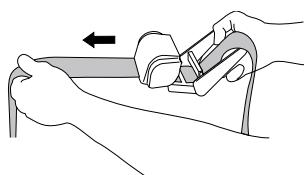
3. Remove the pin. Do not let go of the springloaded wheel, since the tension will release.



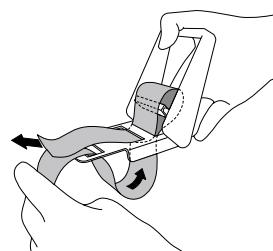
4. Use the pin to lock the axle where the strap was mounted.



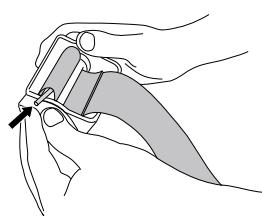
5. Push the emergency lowering handle down and pull the strap away.



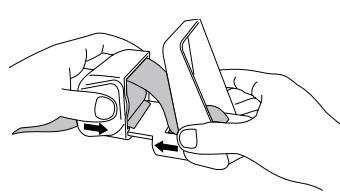
6. Pull the rest of the strap out and remove the plastic housing.



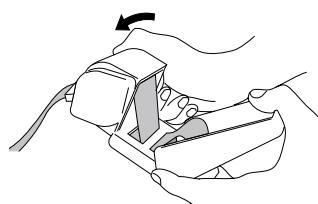
7. Mount the new strap through the plastic housing with the red mark towards the plastic housing and then as shown above.



8. Mount the strap through the slot in the axle and the same way back.



9. Push the plastic housing on to the strap joint.



10. Roll up the strap until the red mark reaches the plastic housing.

After changing Body/Handle the lift must be tested with maximum load

**NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Assembly Instruction  
 Monteringsanvisning

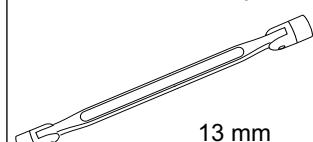
Prod. No. 31190008

 3SE640289-03  
 2009-12-15

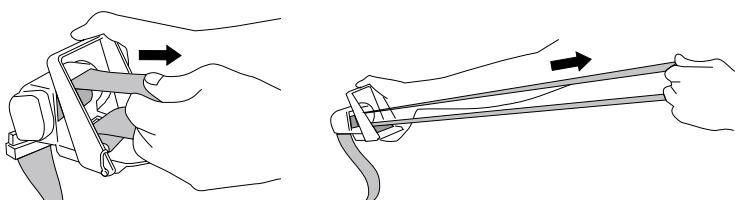
**Contains:**  
 Plastic Housing 1  
 Locking pin 3x48 1

**Fits:**  
 Golvo 7000/7007, 7000S/7007S  
 Golvo 7000ES to S/N 7024205  
 Golvo 7007ES to S/N 7729721  
 Masterlift 2200, 2300  
 Likorall 240, 242, 242S, 242ES

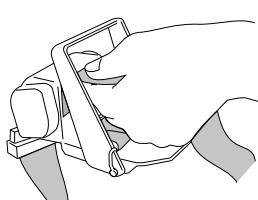
Tools required:



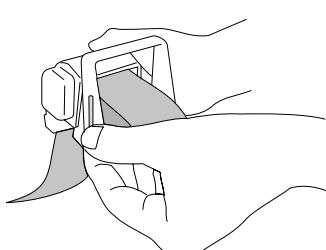
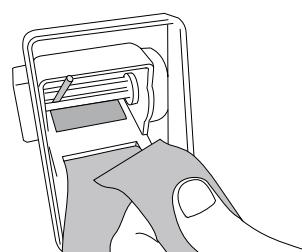
13 mm



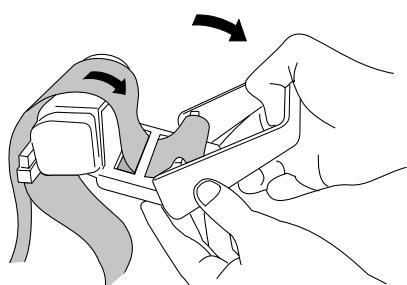
1. Pull the strap all the way out.



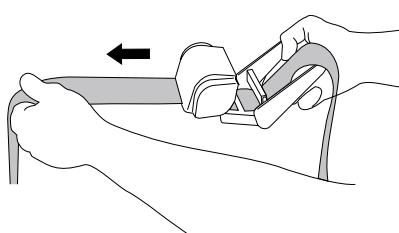
2. Hold the springloaded wheel and release the strap by removing the pin.


 3.  Do not let go of the spring-loaded wheel, since the tension will release.


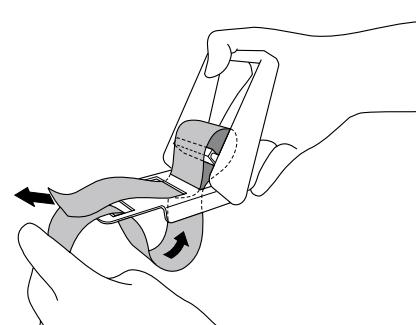
4. Use the pin to lock the axle where the strap was mounted.



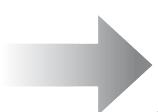
5. Push the emergency lowering handle down and pull the strap away.

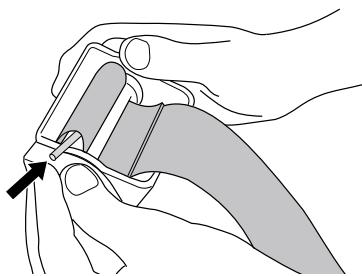


6. Pull the rest of the strap out and remove the plastic housing.

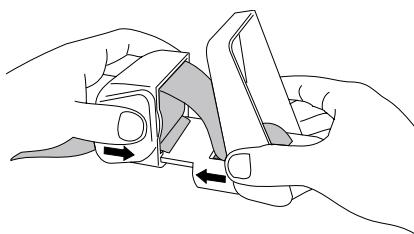


7. Mount the new strap through the plastic housing with the red mark towards the plastic housing and then as shown above.

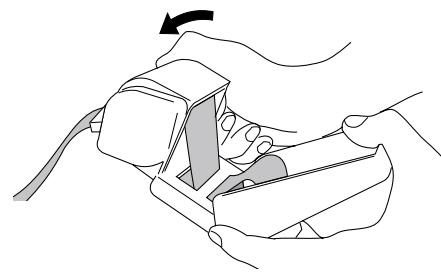




8. Remove the pin. **△**Do not let go of the springloaded wheel, since the tension will release. Mount the strap through the slot in the axle and the same way back. **Note!** The axle has two different sides. Place the pin as shown to lock the strap.



9. Push the plastic housing on to the strap joint.



10. Roll the strap up until the red mark reaches the plastic housing.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

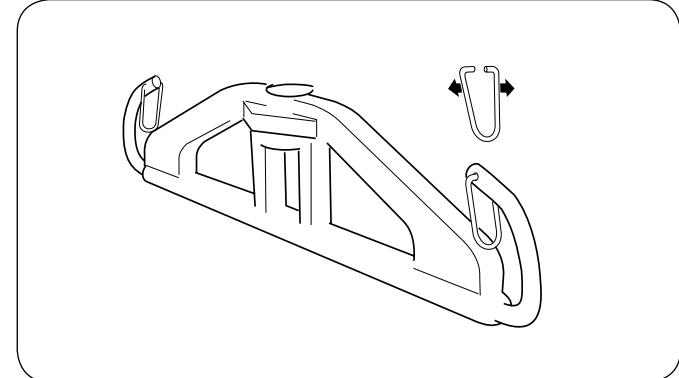
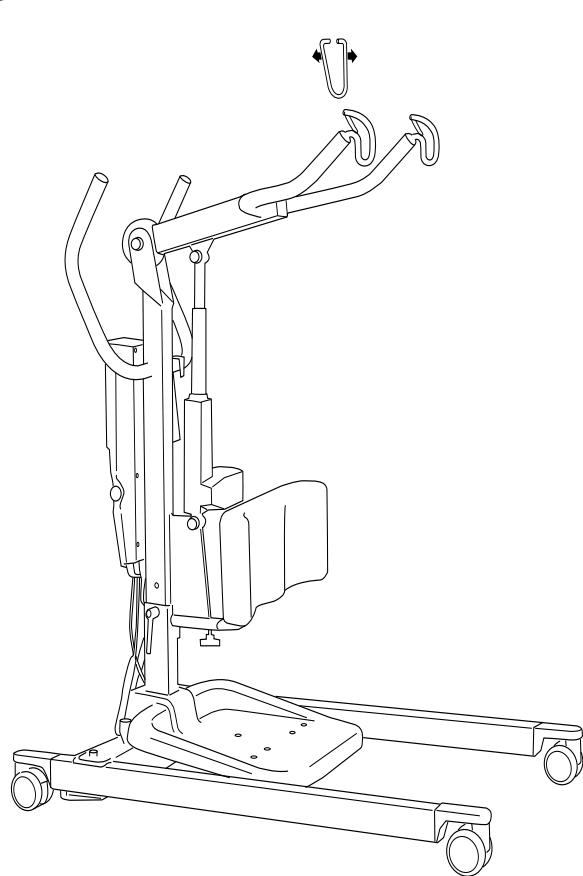
Prod. No. 31190018

3SE640271-03  
2009-09-22

**Contains:**  
Safety Latch

**Qty:**  
2

**Fits:**  
SlingBar Standard 450  
Sabina  
Caroli  
Capella

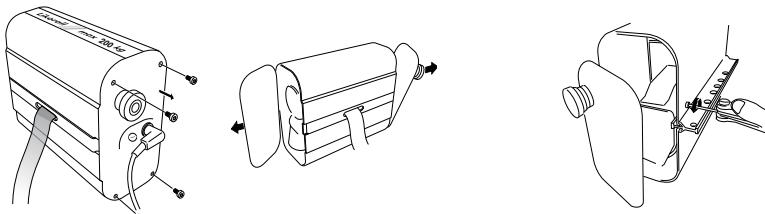


**△ NOTE**

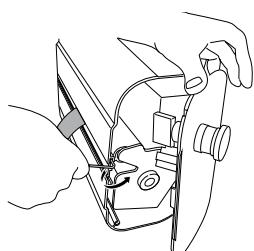
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290005**
**Contains:**  
Actuator Restoration set LR 240

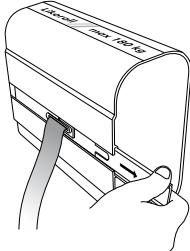
**Qty:**  
1

**Fits:**  
Likorall 240/240R2R

1. Remove the screws from the cover.  
Drive the liftstrap out to the maximum position.

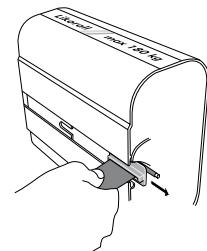
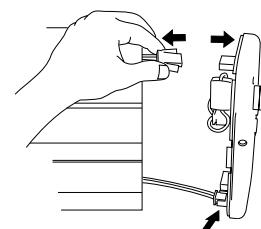
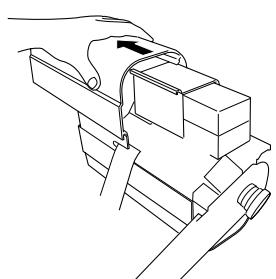
2. Remove the locking screw from the cover.



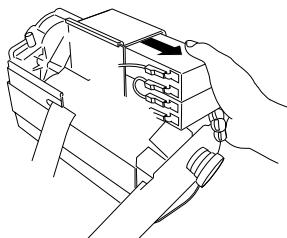
3. Remove the two locking screws from the locking rail.



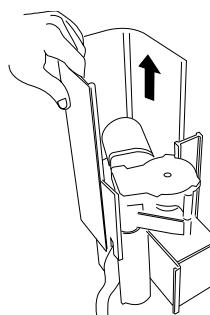
4. Pull the locking rail out.


5. Drive the liftstrap back a little so you can see that the drum is in line with the plate.  
Pull the liftstrap out.

6. Disconnect both contacts.  
Remove and covers.


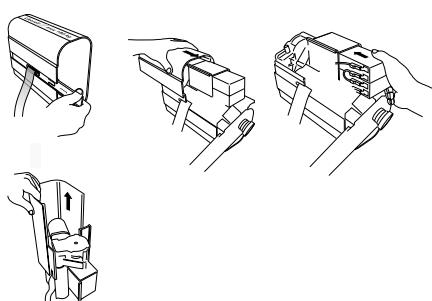
7. Remove the cover from the actuator.



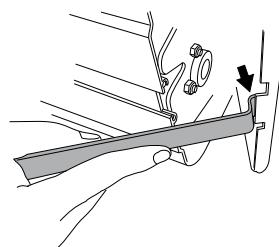
8. Remove the battery.



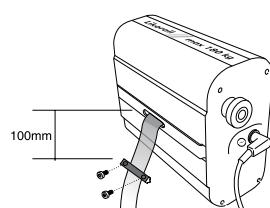
9. Remove the locking screw. Pull out the cover and clip from the actuator.



10. Put together the Likorall in reverse order



11. Mount the squeeze protection between the switch and the cover.

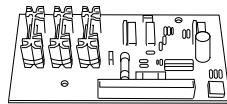


12. Pull the strap to the highest position. Feed out 10 cm. Mount the strapstop on the liftstrap

**△ NOTE**

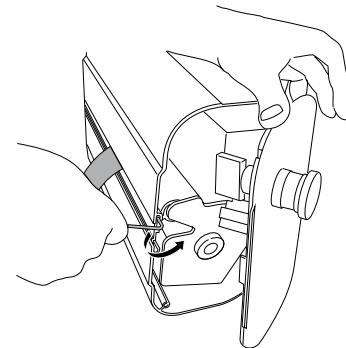
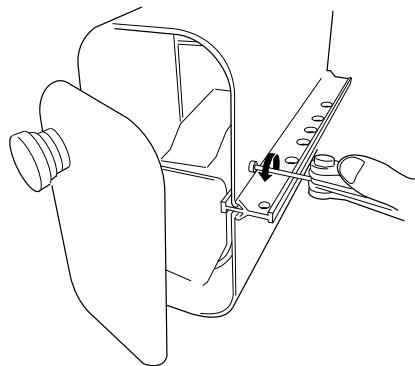
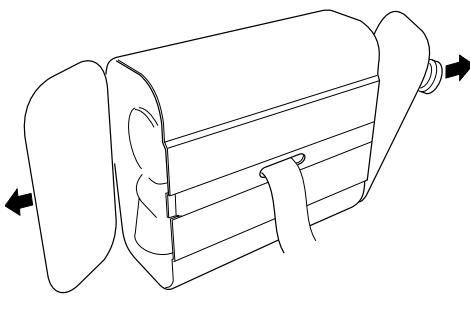
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290006**
**Contains:**  
Actuator Restoration set LR 242

**Qty:**  
1

**Fits:**  
Likorall 240/240R2R

**Tools required:**

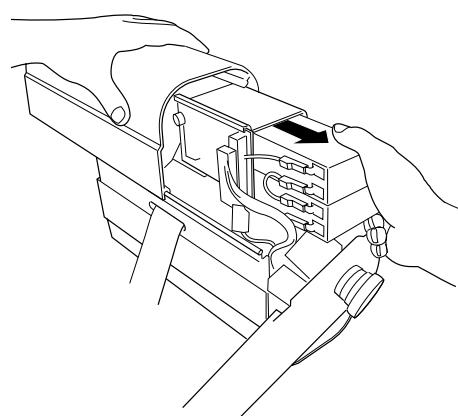
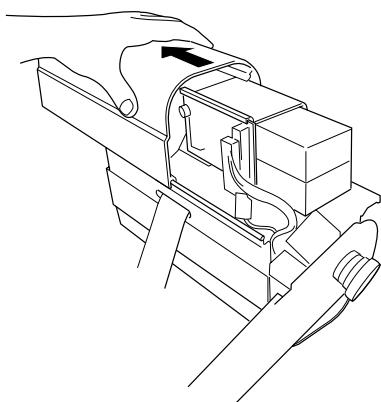
3 och 2,5 mm



1. Remove the cover by un fastening the cover

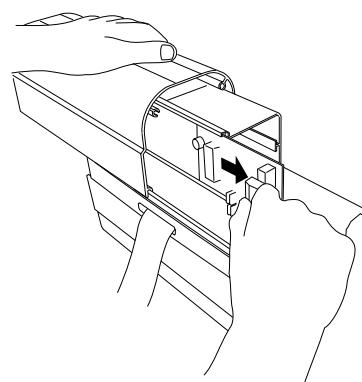
2. Remove the locking screw from the cover.

3. Remove the two locking screws from the locking rail



4. Remove the cover from the actuator.

5. Remove the battery.



6. Pull the electronic card out.

7. Assemble the Likorall in reverse order.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290007**
**3SE630239-05**  
**2009-05-05**
**Contains:**

Batteri 2,6 Ah 12V  
Tape 25x25 G7

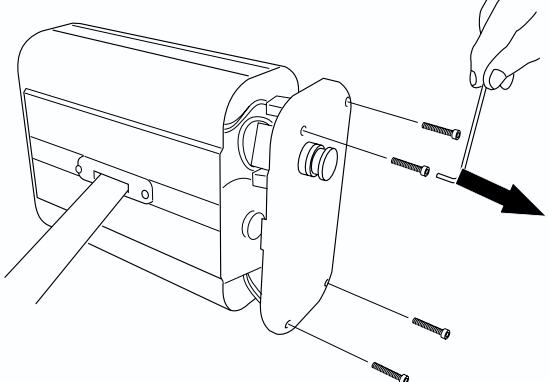
**Qty:**

2  
2

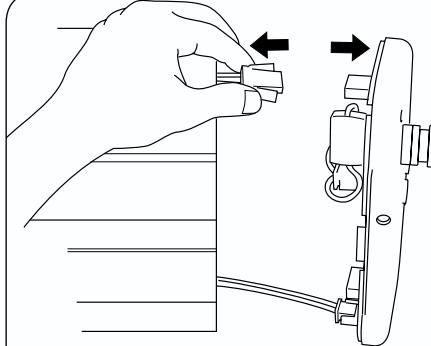
**Fits:**

Likorall  
Multirall  
Transfer Motor Traverse

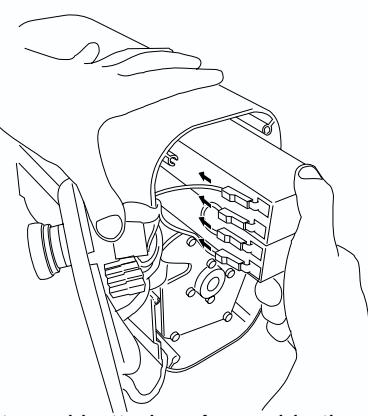
**Tools required:**
 3 mm

**Likorall:**


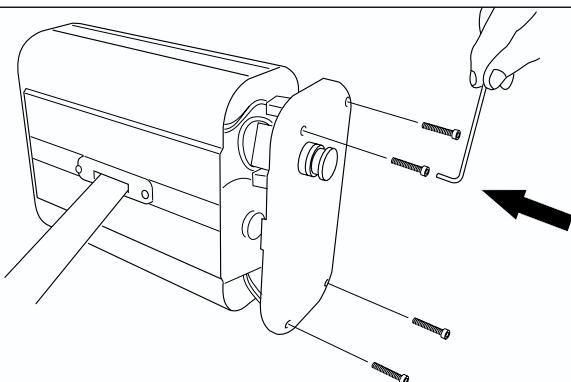
1. Remove the cover by unfastening the screws.



2. Disconnect contact from battery.



3. Pull out used batteries. Assemble the new batteries and the cable-shackle.


4. Put together the Likorall in reverse order.  
Make sure that limiting switch is connected to electronic card.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.
- Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.



## Assembly Instruction

### Monteringsanvisning

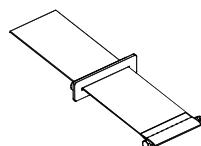
Prod. No. 31290011

3SE670201-04  
2010-01-18

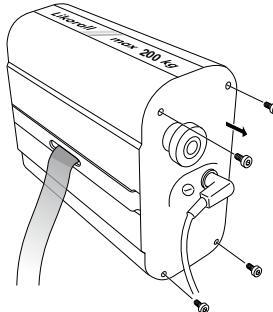
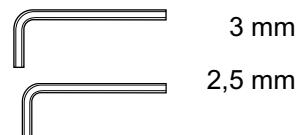
Contains:	Qty:
LiftStrap LR240	1
Screw MCS M3X55	1
Locking nut M3	1
Strap guide (plastic)	1

**Fits:**

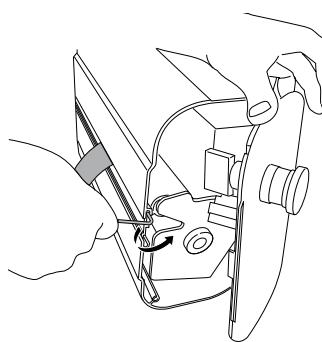
Likorall 240/240R2R  
Likorall 242/242R2R  
Likorall 242ES/242ES R2R  
Likorall 242S/242S R2R



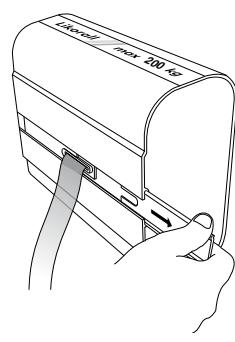
Tools required:



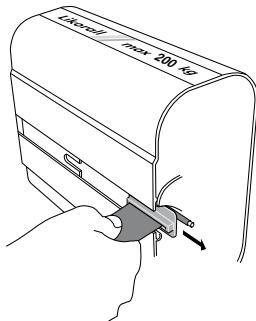
1. Remove the end cover and drive the liftstrap out to the maximum position.



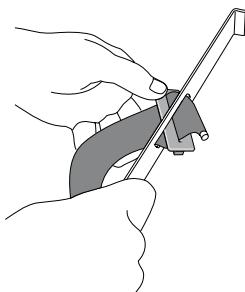
2. Remove the two locking screws from the locking rail.



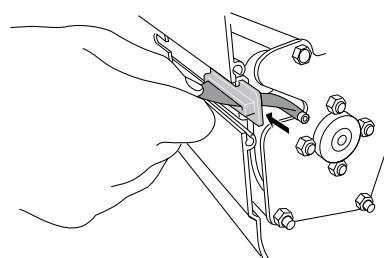
3. Pull the locking rail out .



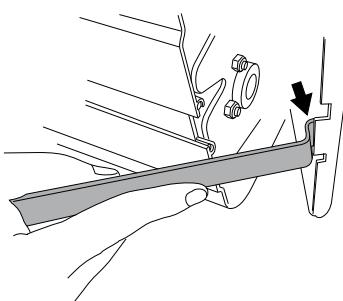
4. Drive the lift strap back a little so you can see that the drum is in line with the plate. Pull out the lift strap.



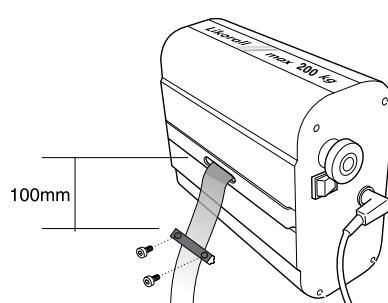
5. Mount the new lift strap through the squeeze protection.



6. Mount the lift strap

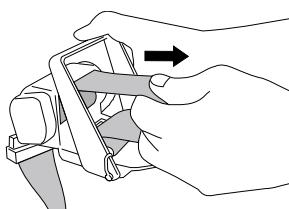


7. Mount the squeeze protection between the switch and the end cover.

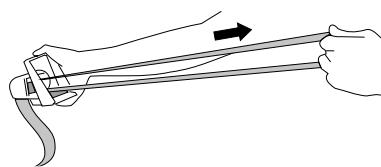


8. Pull the strap in to the highest position. Feed out 10 cm. Mount the strapstop on the lift strap

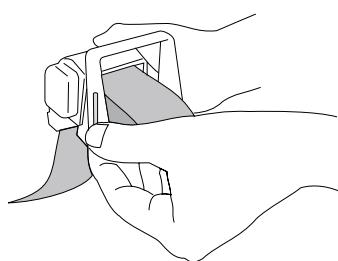
## Assembling the liftstrap with emergency lowering device:



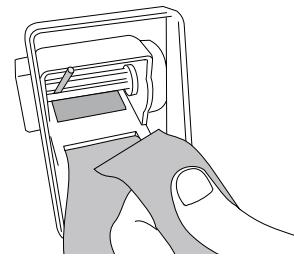
1. Pull the strap all the way out.



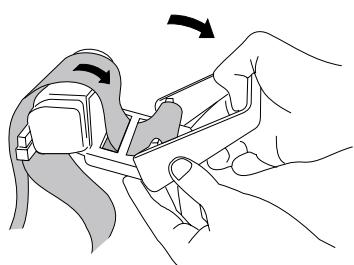
2. Hold the springloaded wheel and release the strap by removing the pin.



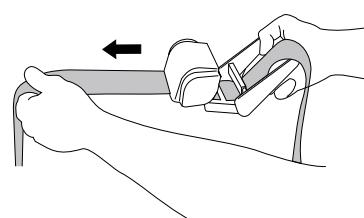
3. Remove the pin.△ Do not let go of the springloaded wheel, since the tension will release.



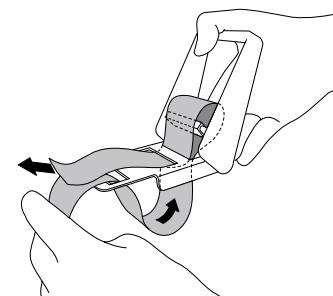
4. Use the pin to lock the axle where the strap was mounted.



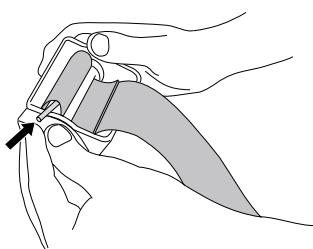
5. Push the emergency lowering handle down and pull the strap all the way.



6. Pull the rest of the strap out and remove the plastic housing.

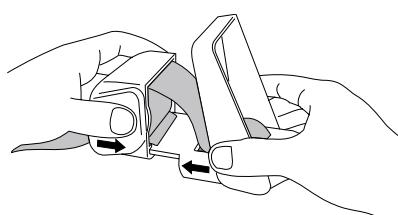


7. Mount the new strap through the plastic housing with the red mark towards the plastic housing and then as shown above.

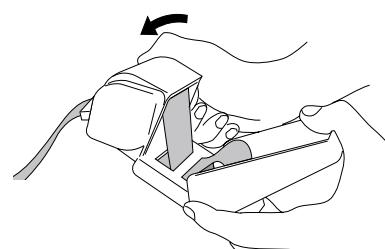


8. Mount the strap through the slot in the axle and the same way back.

**Note!** The axle has two different sides. Place the pin as shown to lock the strap.△ Do not let go of the springloaded wheel, since the tension will release.



9. Push the plastic housing on to the strap joint.



10. Roll up the strap until the red mark reaches the plastic housing.

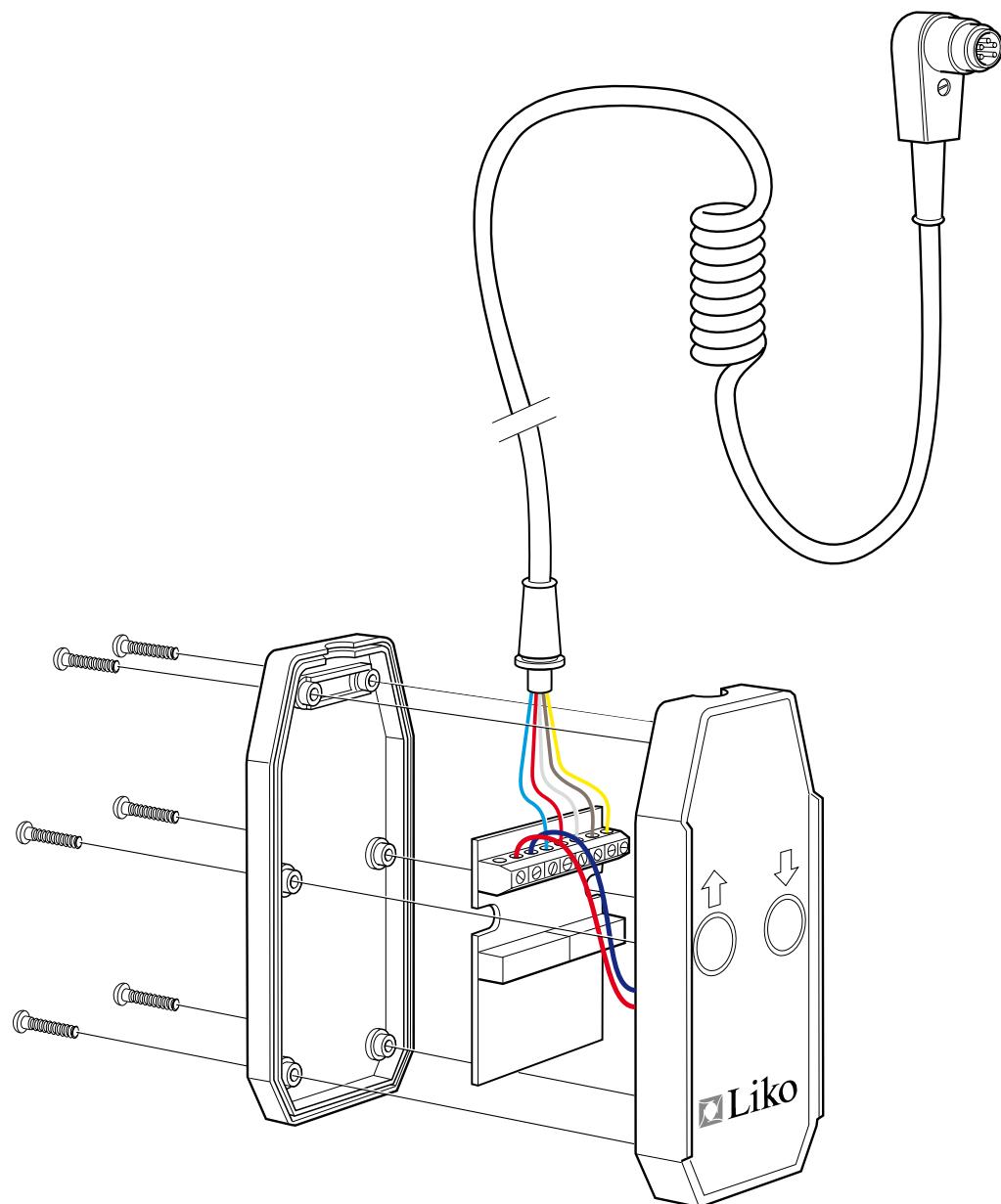
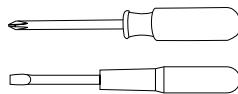
### △ NOTE

- After changing lift strap the SSP Limit Switch must be tested by lifting maximum load all the way up to the highest position through the entire lifting range.
- With the emergency stop out, move the lift strap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290014**
**Contains:**  
Cable for hand control

**Qty:**  
1

**Fits:**  
Likorall 240/240R2R

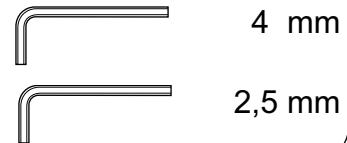
**Tools required:**

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 31290052

Tools required:


**Contains:**

End cover set, black  
Damper, neoprene

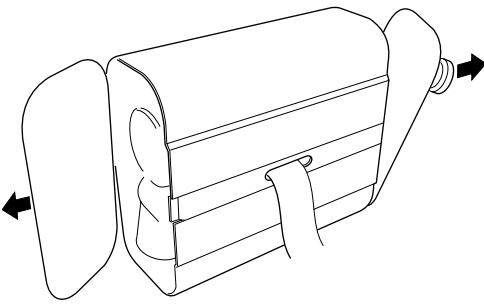
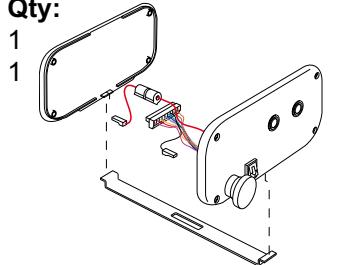
**Fits:**

Likorall 240/240R2R

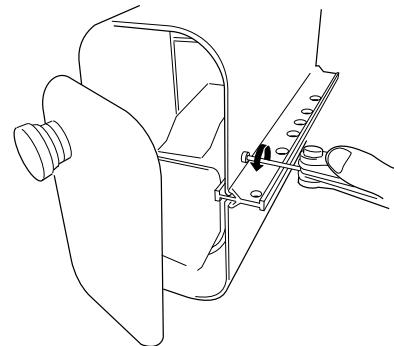
**Qty:**

1

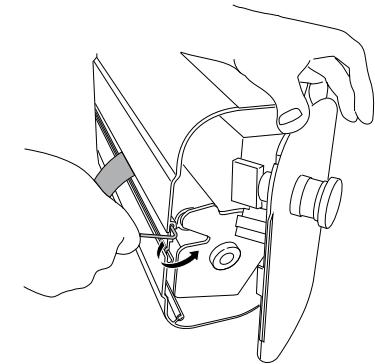
1



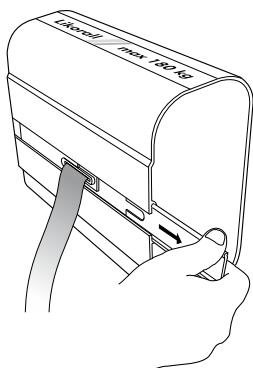
1. Remove the end covers.



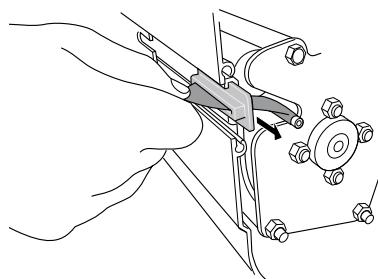
2. Remove the locking screw from the cover.



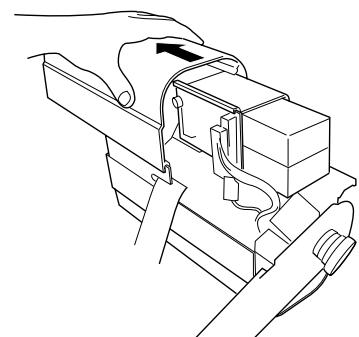
3. Remove the two locking screws from the locking rail.



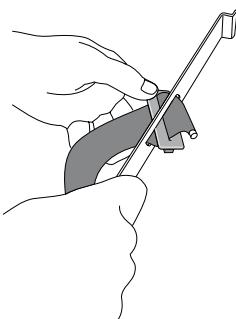
4. Pull out the locking rail.



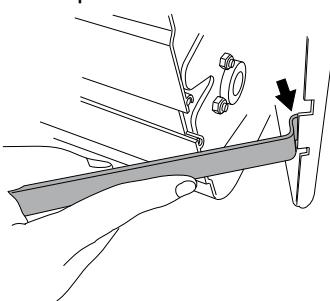
5. Drive the lift strap back a little so you can see that the drum is in line with the plate. Pull out the liftstrap.



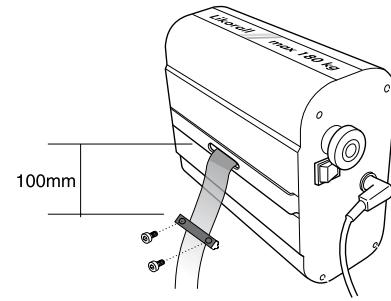
6. Remove the cover from the actuator.



7. Mount the lift strap through the squeeze protection.



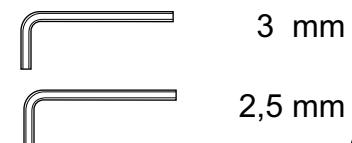
8. Mount the squeeze protection between the switch and the cover.



9. Pull the strap in to the highest position. Feed out 10 cm. Mount the strap stop on the lift strap.

**△ NOTE**

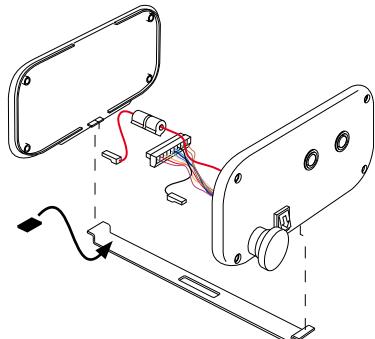
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290053**
**Tools required:**

**Contains:**

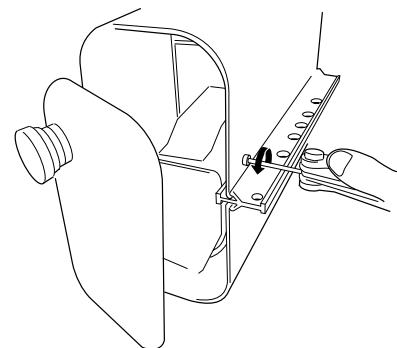
	<b>Qty:</b>
End cover set, grey	1
End cover w squeeze prot.LR24 grey	1
Damper, neoprene	1
Screw MC6S M5x16	2
Squeeze protection	1
Strap stop 1	1
Strap stop 2	1

**Fits:**

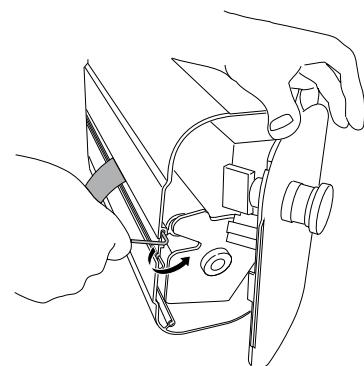
Likorall 240/240R2R



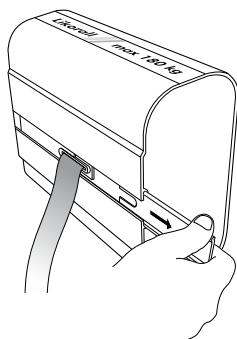
1. Assemble the damper at the squeeze protection.



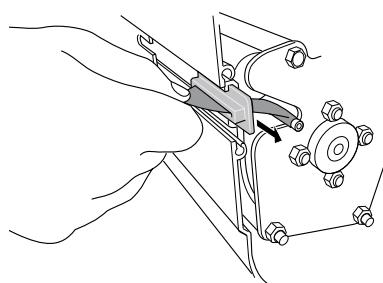
2. Remove the two end covers and the locking screw from the cover.



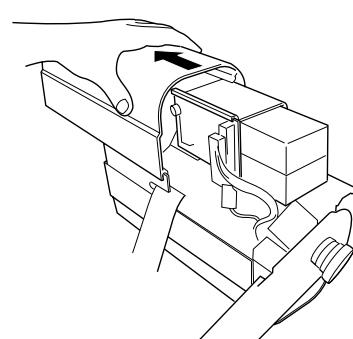
3. Remove the two locking screws from the locking rail.



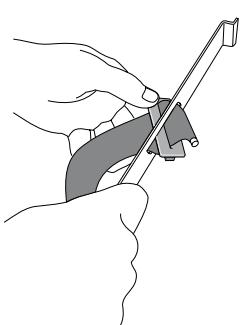
4. Pull out the locking rail.



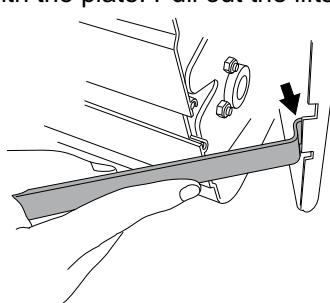
5. Drive the lift strap back a little so you can see that the drum is in line with the plate. Pull out the liftstrap.



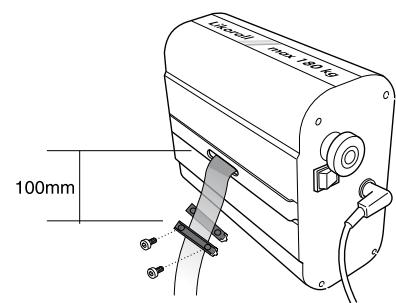
6. Remove the cover from the actuator.



7. Mount the lift strap through the squeeze protection.



8. Mount the squeeze protection between the switch and the cover.



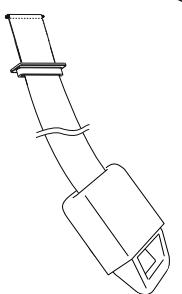
9. Pull the strap in to the highest position. Feed out 10 cm. Mount the strap stop on the lift strap.

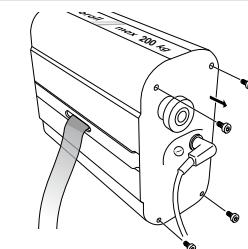
**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

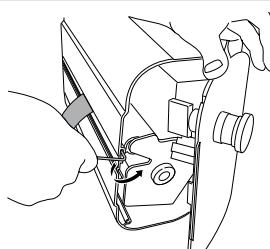
**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290028**
**3SE670202-04**  
**2010-01-18**
**Contains:**

	<b>Qty:</b>
Screw MCS M3x55	1
Locking nut M3 Nyloc	1
Strap joint plastic cover	1
Lift strap joint	1
Lift strap safety pin 4mm	1
Lift strap B50 black	1

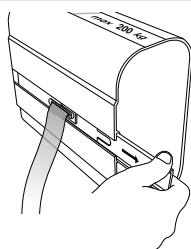

**Fits:**
**Likorall 240/240R2R**  
**Likorall 242/242R2R**  
**Likorall 242ES/242ES R2R to S/N 423744**  
**Likorall 242S/242S R2R to S/N 262602**
**Tools required:**

**3 and 2,5 mm**


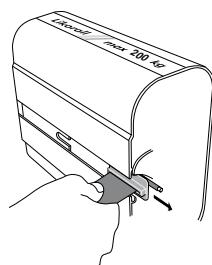
1. Remove the end cover and drive the liftstrap out to the maximum position.



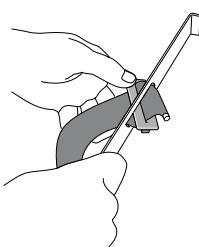
2. Remove the two locking screws from the locking rail.



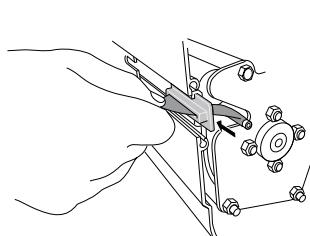
3. Pull the locking rail out .



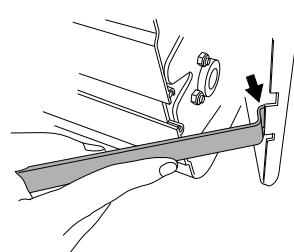
4. Drive the lift strap back a little so you can see that the drum is in line with the plate. Pull out the lift strap.



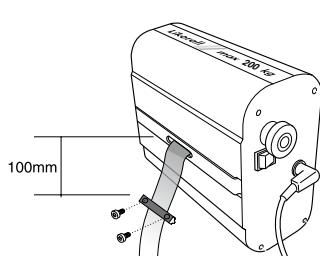
5. Mount the new lift strap through the squeeze protection.



6. Mount the lift strap



7. Mount the squeeze protection between the switch and the end cover.



8. Pull the strap in to the highest position. Feed out 10 cm. Mount the strapstop on the lift strap

**△ NOTE**

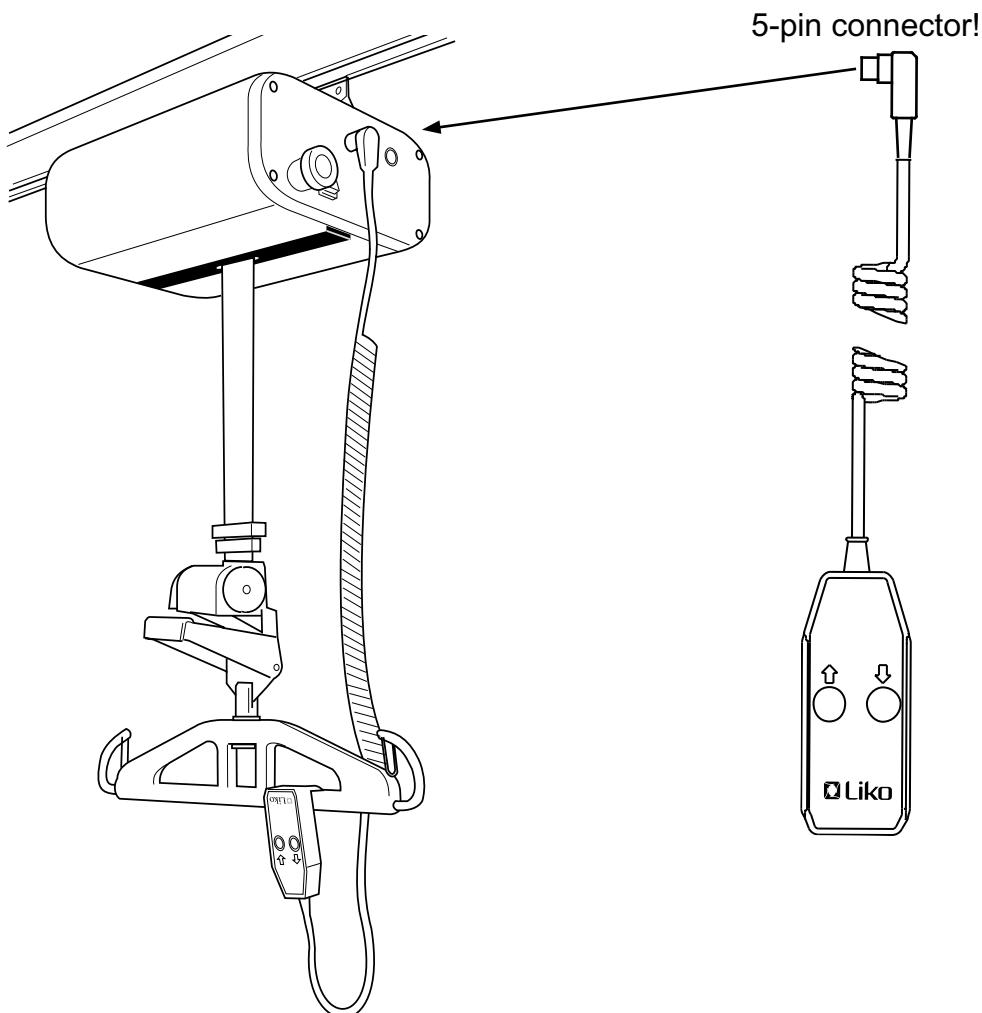
- After changing lift strap the SSP Limit Switch must be tested by lifting maximum load all the way up to the highest position through the entire lifting range.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 3126031**

**Contains:**  
Hand control

**Qty:**  
1

**Fits:**  
Likorall 240/240 R2R  
Likorall 242/242 R2R


**△ NOTE**

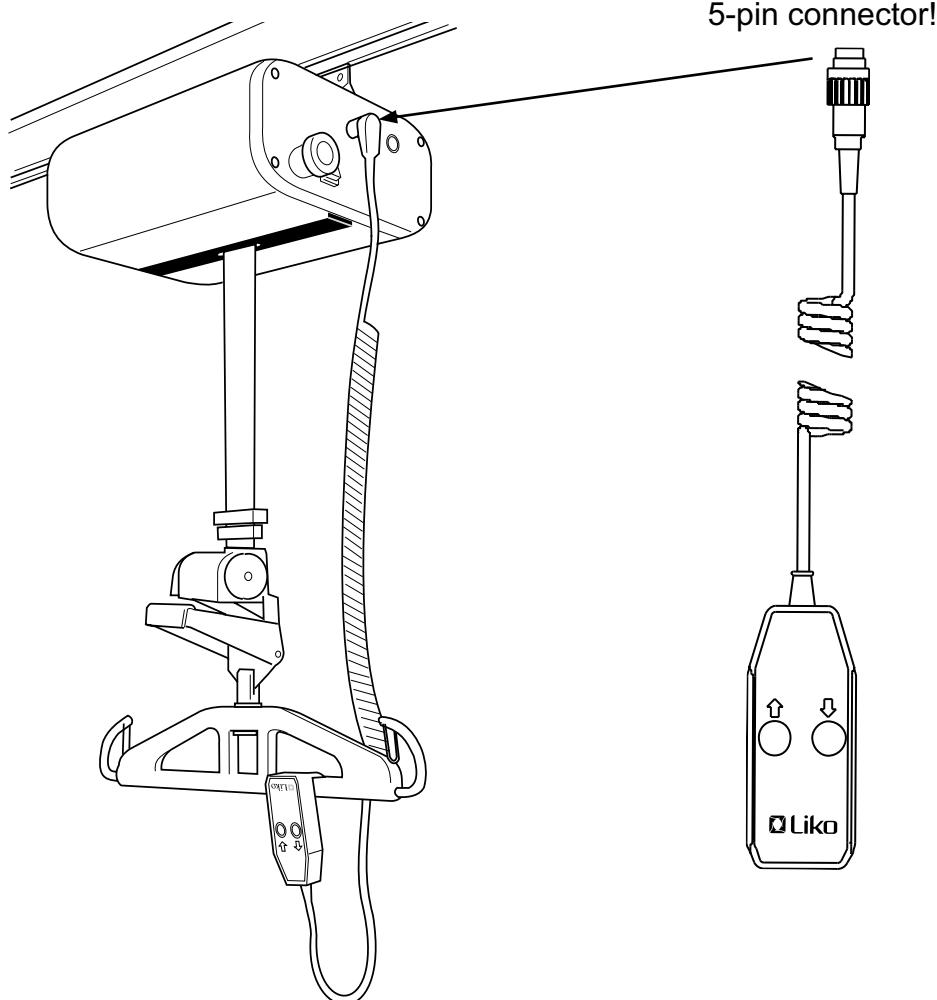
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 3126033

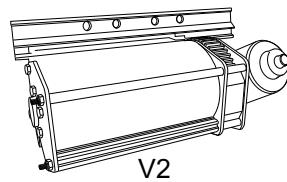
**Contains:**  
Hand control

**Qty:**  
1

**Fits:**  
Likorall 240/240 R2R  
Likorall 242/242 R2R

**△ NOTE**

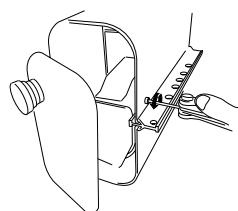
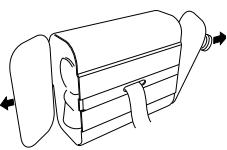
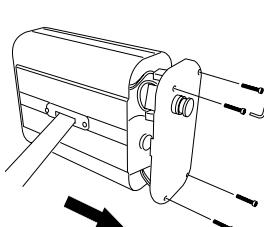
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290054**
**3SE650205-03**  
**2010-06-18**
**Contains:**  
Actuator Restoration set LR 242

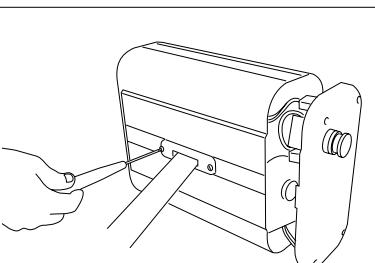
**Qty:**  
1

**Fits:**  
Likorall 200  
Likorall 240  
Likorall 242  
Likorall 243  
Likorall 250

**Tools required:**

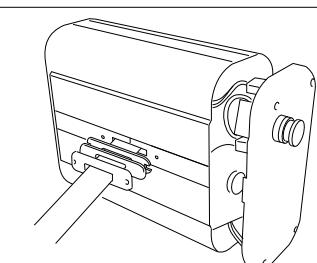
3 och 2,5 mm



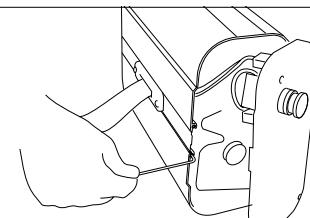
1. Remove the screws to release the end covers. Drive the liftstrap out to the maximum position with the handcontrol. Remove the locking screw from the cover.



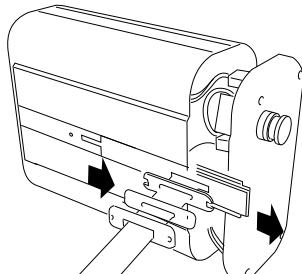
2. Remove the two locking screws from the cover.



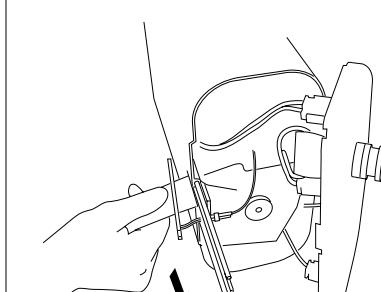
3. Remove the cover.



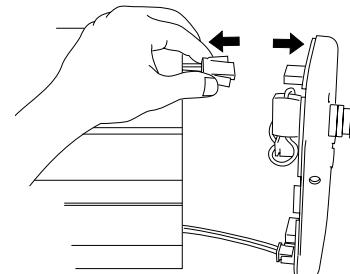
4. Drive the lift strap upwards just so you can see that the drum is in line with the plate. Remove the two locking screws from the locking rail.



5. Pull out the strap and limiting switch together with the locking rail. see pic 6

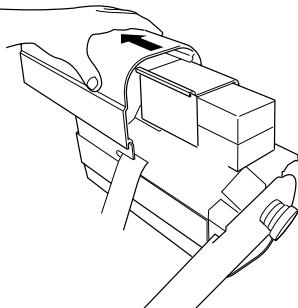


6.

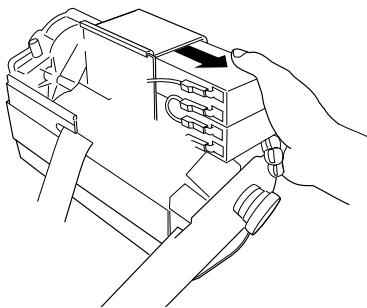


7. Disconnect both contacts. Remove end covers.

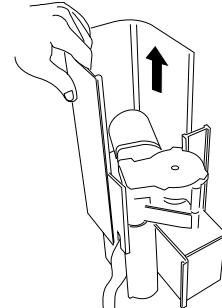




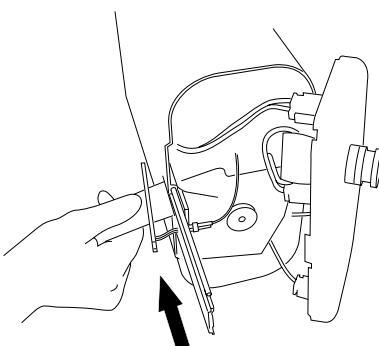
8. Remove the cover from the actuator.



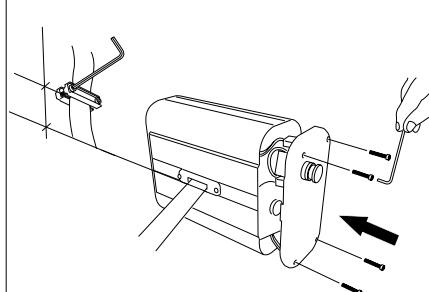
9. Remove the battery.



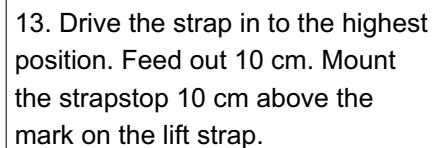
10. Remove the locking screw. Pull out the cover and clip from the actuator.



11. Assemble the Likorall in reverse order.



12. Mount the lift strap through the limit switch and locking rail. Mount the lift strap.



13. Drive the strap in to the highest position. Feed out 10 cm. Mount the strapstop 10 cm above the mark on the lift strap.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 3129055**
**Contains:**  
 Electronic card

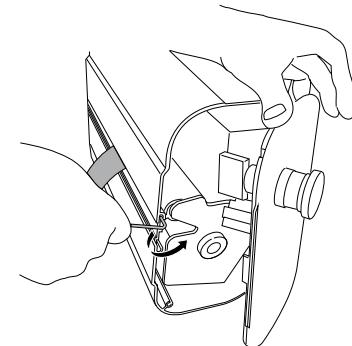
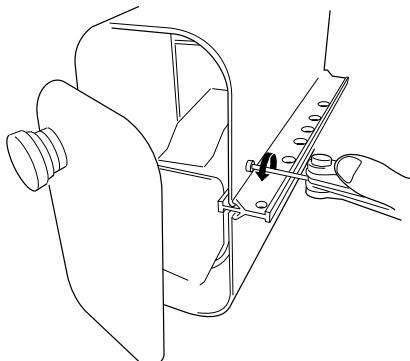
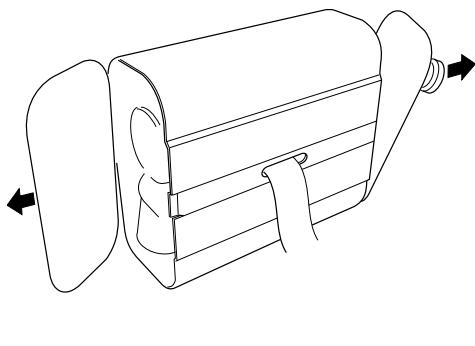
**Qty:**  
 1

**Fits:**  
 Likorall 242/242R2R

**Tools required:**

3 mm

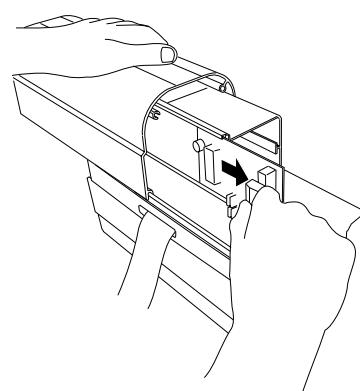
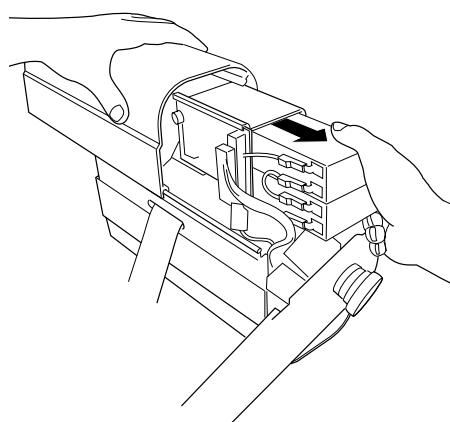
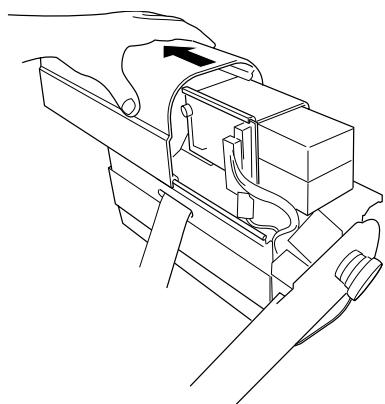
2,5 mm



1. Remove the end covers.

2. Remove the locking screw from the cover.

3. Remove the two locking screws from the locking rail.



4. Remove the cover from the actuator.

 5. Remove the battery and the electronic card from the clip.  
 Assemble in reverse order.

**△ NOTE**

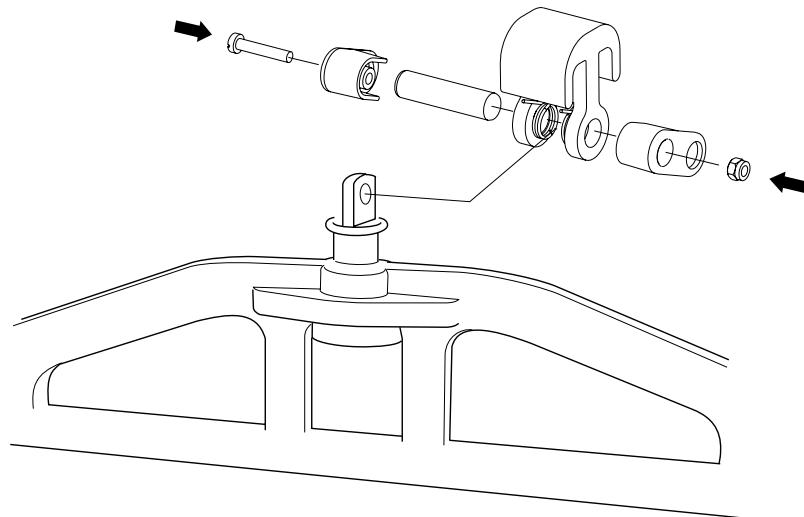
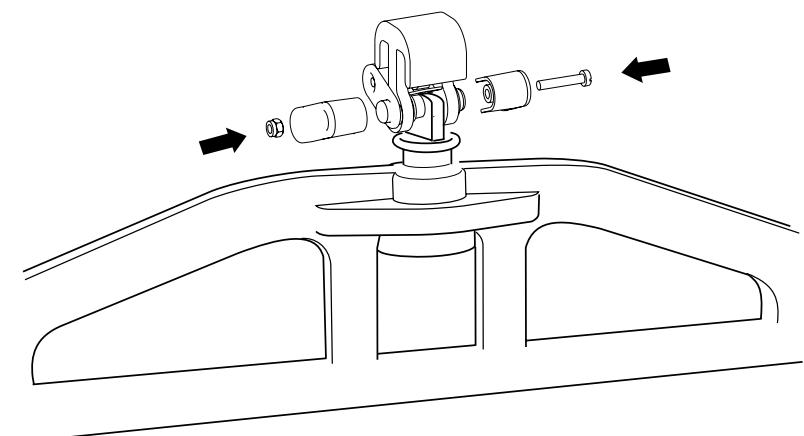
- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290056**
**3SE640288-02**  
**2009-06-24**

<b>Contains:</b>	<b>Qty:</b>
Double-wound rotary spring	1
Spring capsule 14	2
Spring capsule 16	2
Double hook R2R	1
Locking nut M4 Nyloc	2
Screw MCS M4x22mm	2
Cylindrical pin CP 10x40	1

**Fits:**

 Likorall 240/240R2R  
 Likorall 242/242R2R  
 Likorall 242ES/242ESR2R  
 Likorall 242S/242S R2R

**Tools required:**
**1.**

**2.**

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction  
Monteringsanvisning**

Prod. No. 31290057

3SE640287-02  
2009-06-24

**Contains:**

Strapstop 1 LR24	Qty: 1
Strapstop 2 LR24	1
Screw MC6S M5x16 Din 6912	2

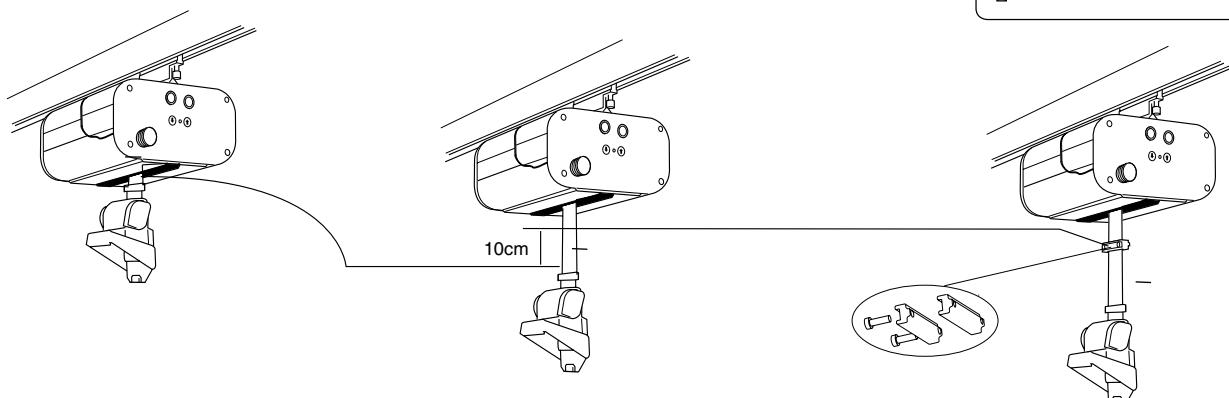
**Fits:**

Likorall 240/240R2R  
Likorall 242/242R2R  
Likorall 242ES/242ES R2R  
Likorall 242S/242S R2R

**Likorall 242 ES, 242 S**

Tools required:

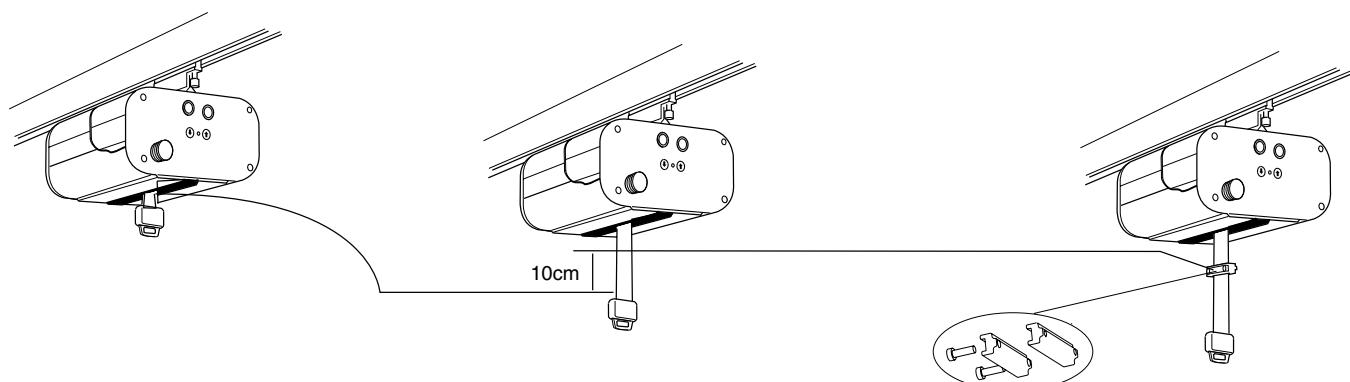
4 mm



1. Drive the strap to the highest position.

2. Mount the strapstop  
10 cm above the stop mark.

**Likorall 242 ES R2R, 242 S R2R**



1. Drive the strap to the highest position.

2. Feed out the liftstrap 10 cm.

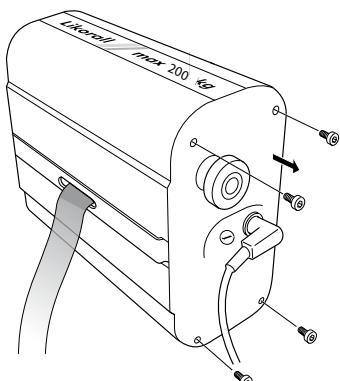
3. Mount the strapstop  
10 cm above the stop mark.

**△ NOTE**

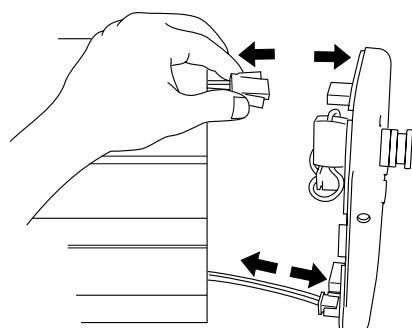
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290058**
**Contains:**  
Cover LR 242S, 242ES complete      **Qty:**  
1

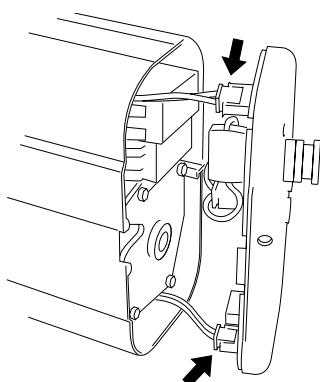
**Fits:**  
Likorall 242ES/242ES R2R to S/N 423744

**Tools required:**


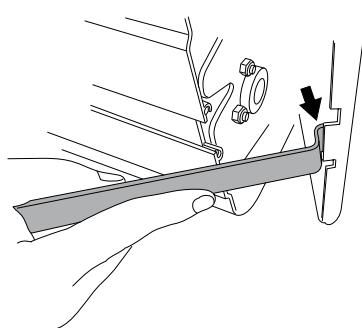
1. Remove the cover by unfastening the 4 screws.



2. Disconnect the contacts.



3. Mount the new cover with card and connect contacts.



4. Fasten the cover and limiting switch.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

**Contains:**  
Movable strap stop

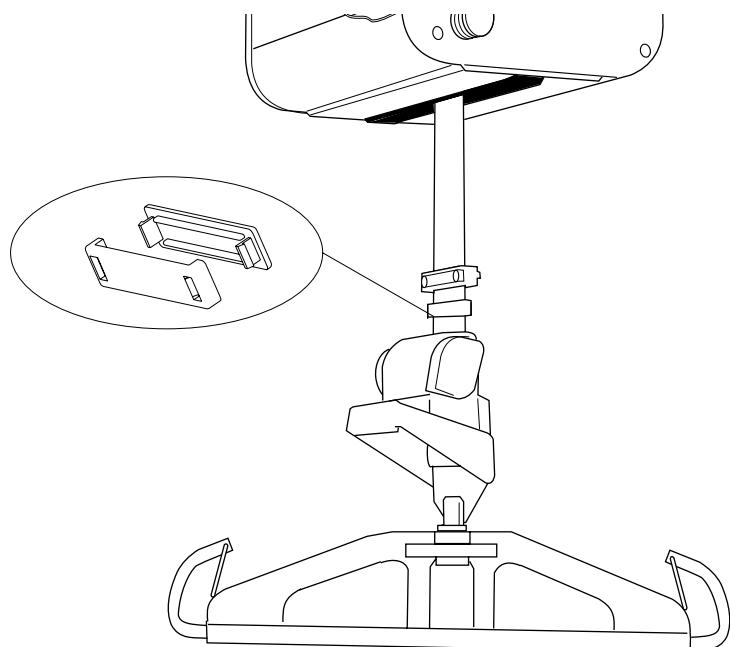
**Qty:**  
10

**Fits:**  
Likorall 240/240R2R  
Likorall 242/242R2R  
Likorall 242ES/242ES R2R  
Likorall 242S/242S R2R

Prod. No. 31290059

3SE640286-02  
2009-06-24

Tools required:

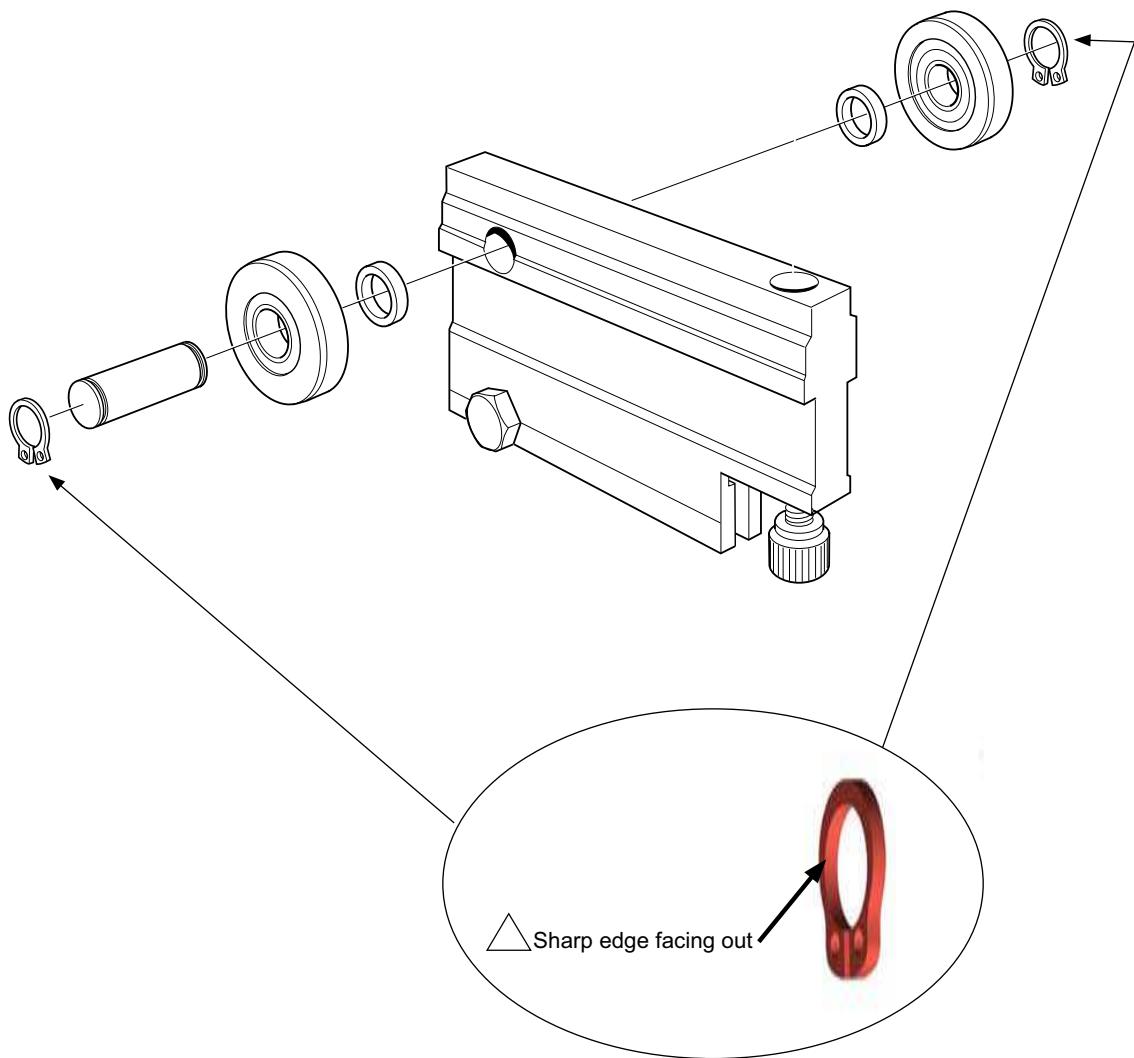
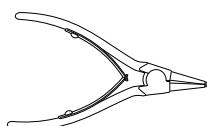


**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290060**
**3SE650207-03**  
**2009-07-02**
**Contains:**  
Wheel w/bearing for carriLR carriage      **Qty:**  
2

**Fits:**  
Likorall 240/240R2R, 242/242R2R  
Likorall 242ES/242ESR2R, 242S/242S R2R  
Likorall 243ES/ 243ES R2R  
Likorall 250ES  
Likorall 200

**Tools required:**

**△ NOTE**

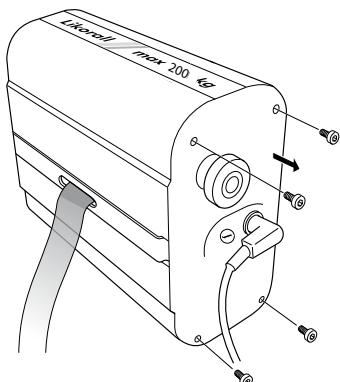
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Contains:** Qty:  
Cover LR 242S, 242ES complete 1

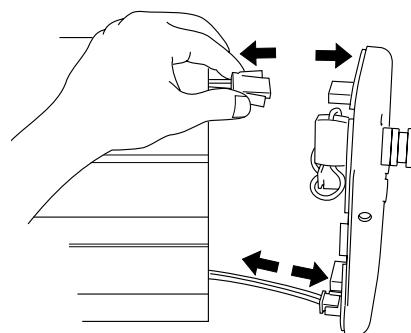
Prod. No. 31290062

**Fits:**

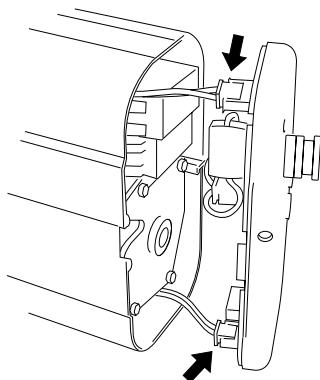
Likorall 242S/242S R2R to S/N 262602

**Tools required:**


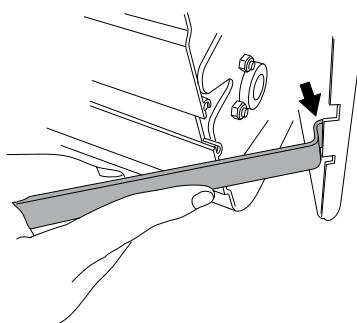
1. Remove the cover by unfastening the 4 screws.



2. Disconnect the contacts.



3. Mount the new cover with card and connect contacts.



4. Fasten the cover and limiting switch.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

## Assembly Instruction

### Monteringsanvisning

Contains:	Qty:
Axelstop Left emerg.	1
Axelstop right emerg.	1
Emergency lowering Handle	1
Tube 10x12 L=60 Alu. Emer	1
Pin 6x30 emerg.	2
Friction profile	1
Plate frames	1
Torsion spring Right	1
Torsion spring left	1

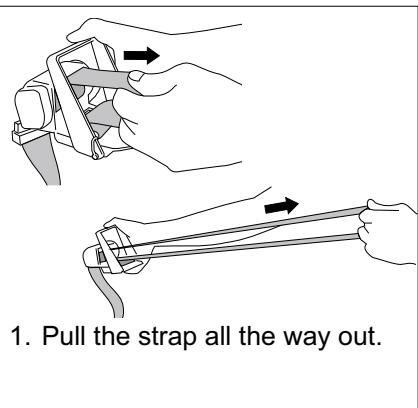
**Fits:**

Masterlift 2200  
Masterlift 2300  
Likorall 240/240 R2R  
Likorall 242/242 R2R  
Likorall 242ES/242ES R2R  
Likorall 242S/242S R2R

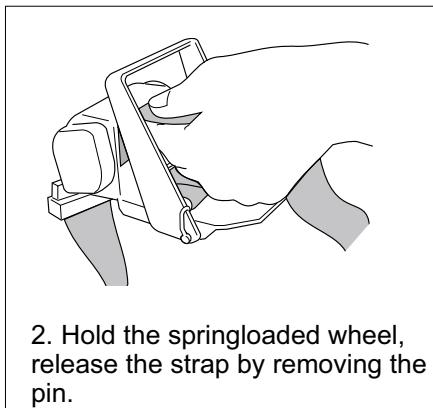
Prod. No. 31190021

3SE650209-03  
2009-06-26

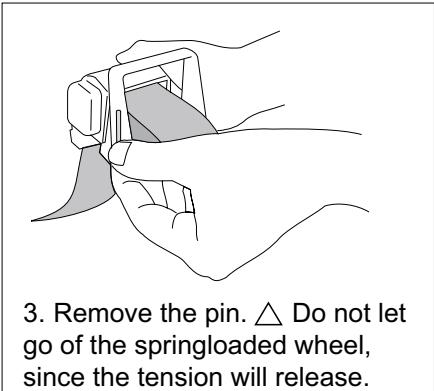
Tools required:



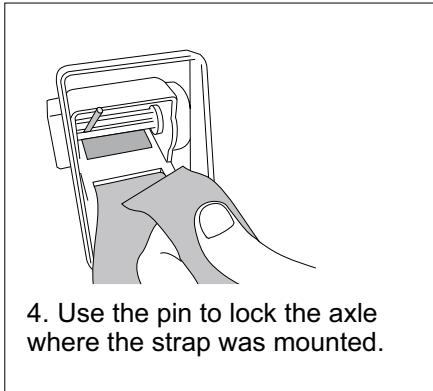
1. Pull the strap all the way out.



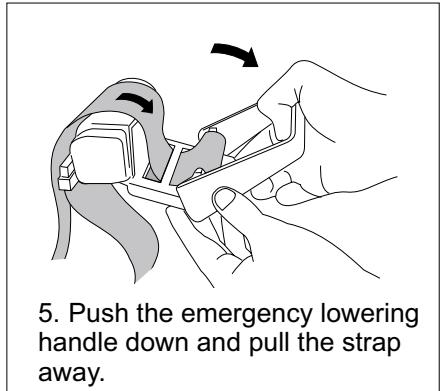
2. Hold the springloaded wheel, release the strap by removing the pin.



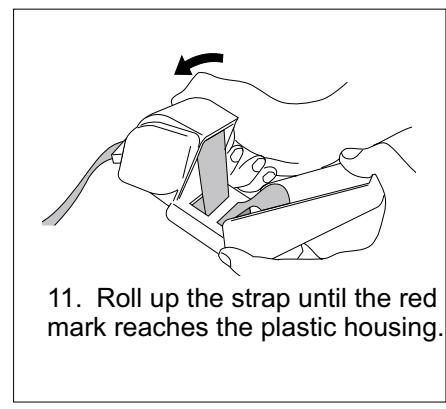
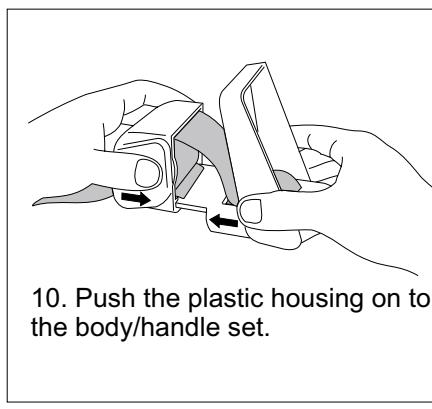
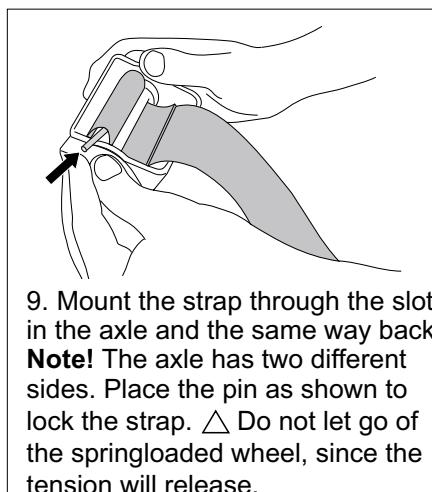
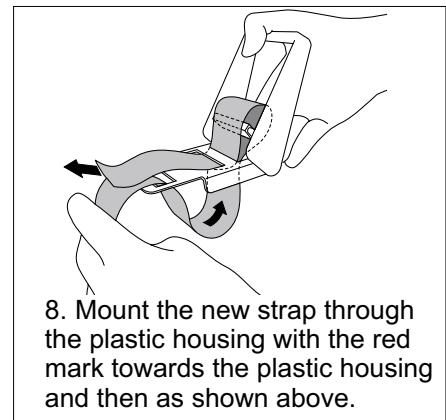
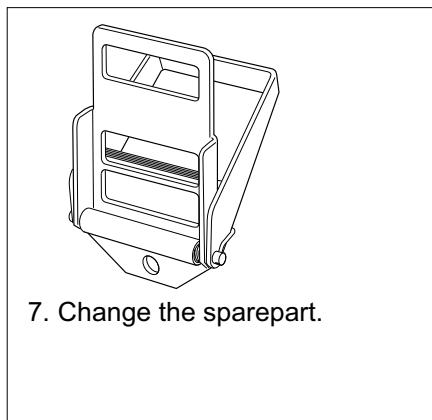
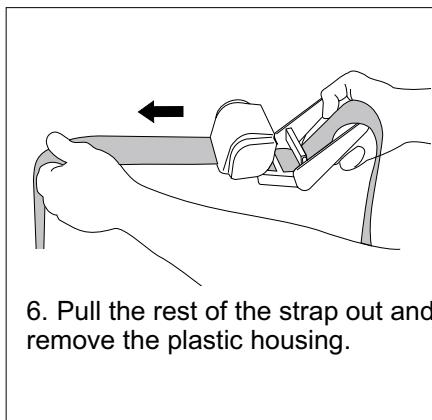
3. Remove the pin. Do not let go of the springloaded wheel, since the tension will release.



4. Use the pin to lock the axle where the strap was mounted.



5. Push the emergency lowering handle down and pull the strap away.

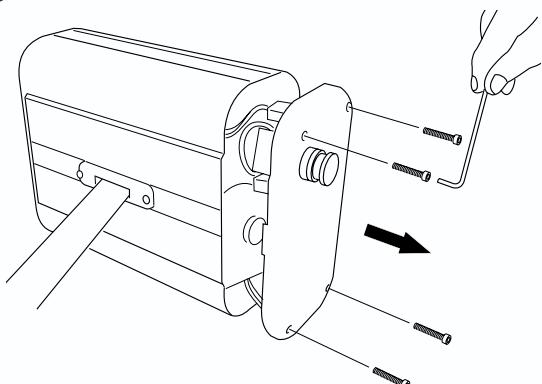

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

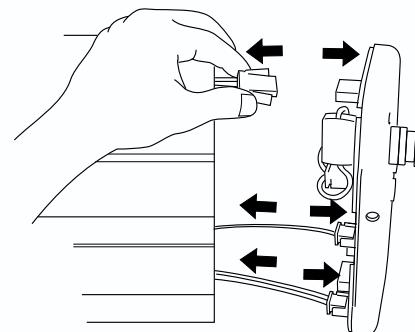
**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290063**
**3SE650212-03**  
**2009-12-15**
**Contains:**  
Cover LR243 complete

**Qty:**  
1

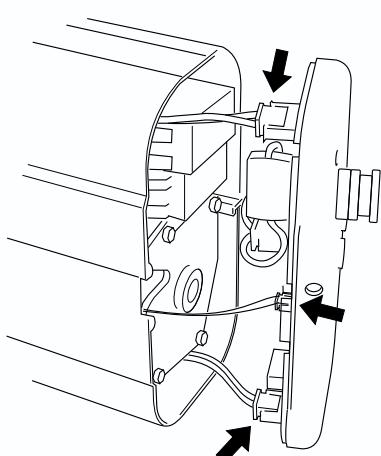
**Fits:**  
Likorall 243ES  
Likorall 250ES

**Tools required:**


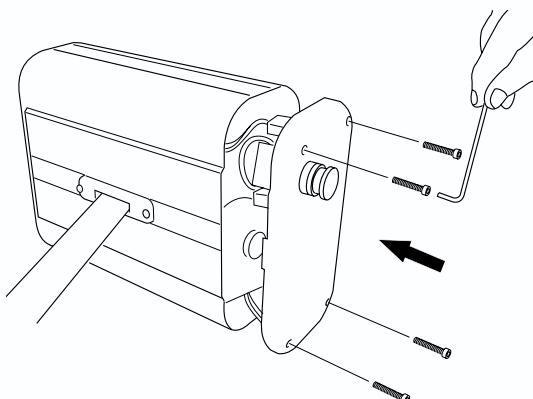
1. Remove the cover by unfastening the 4 screws.



2. Disconnect the contacts.



3. Mount the new cover with card and connect contacts.



4. Fasten the cover.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 31290064

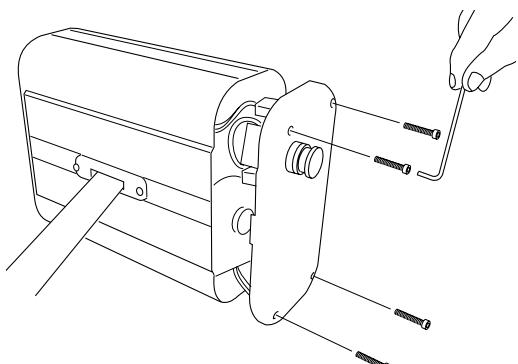
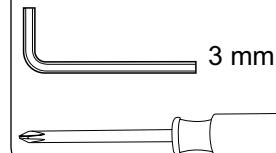
3SE650210-04  
 2009-06-26

**Contains:**  
 Limit switch el.card LR

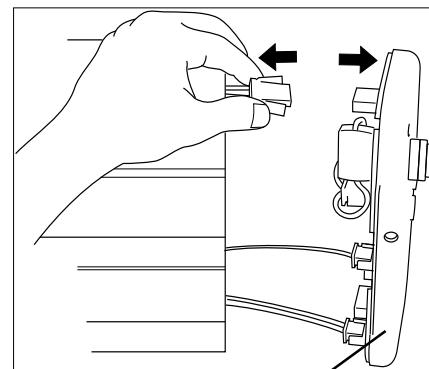
**Qty:**  
 1

**Fits:**  
 Likorall 240/240 R2R  
 Likorall 242/242 R2R  
 Likorall 242ES/242ES R2R  
 Likorall 242S/242S R2R

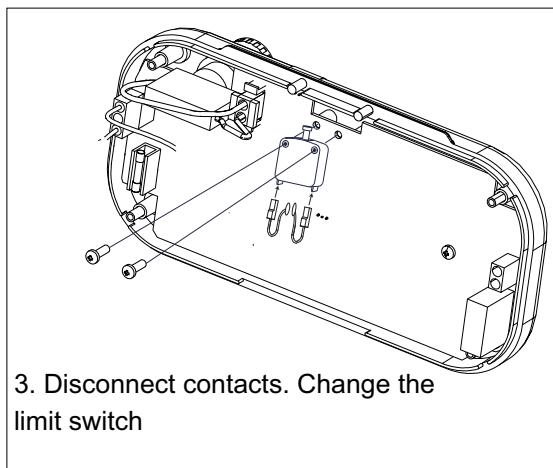
Tools required:



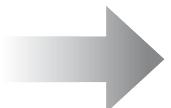
1. Remove the cover by unfastening the 4 screws.

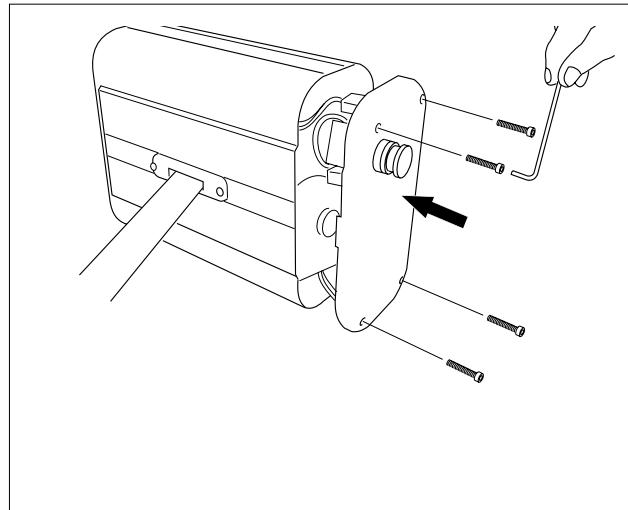
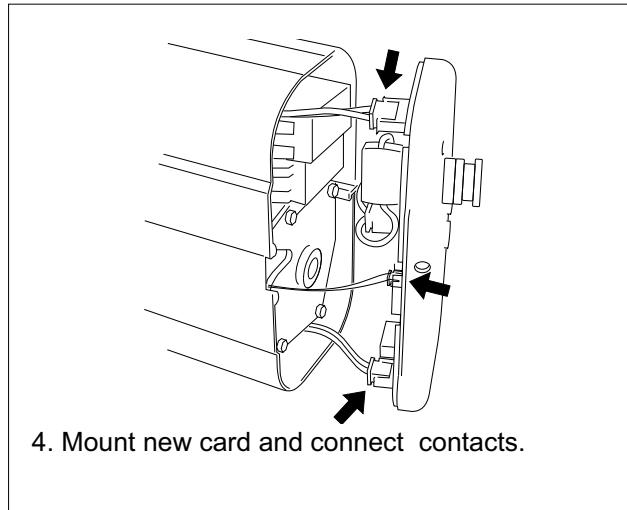


2. Disconnect contacts.



3. Disconnect contacts. Change the limit switch




**△ NOTE**

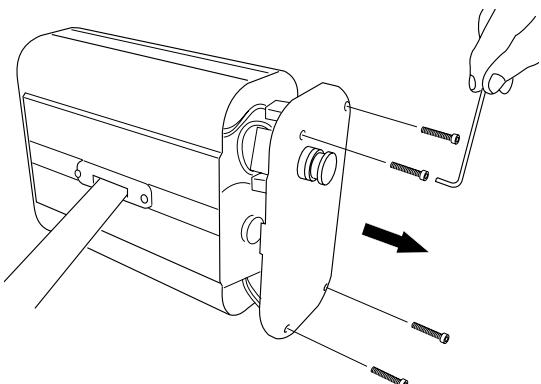
- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Contains:**  
Cover LR242 S, ES complete      **Qty:**  
1

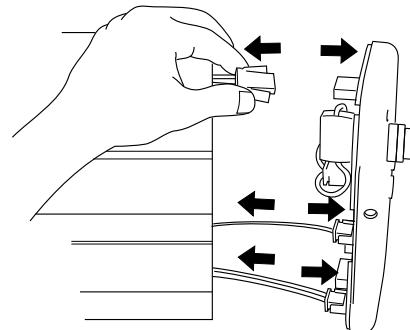
**Fits:**  
Likorall 242ES/ 242ES R2R from S/N 423745  
Likorall 242S/ 242S R2R from S/N 262603

**Prod. No.** 31290065 (ES)  
31290066 (S)

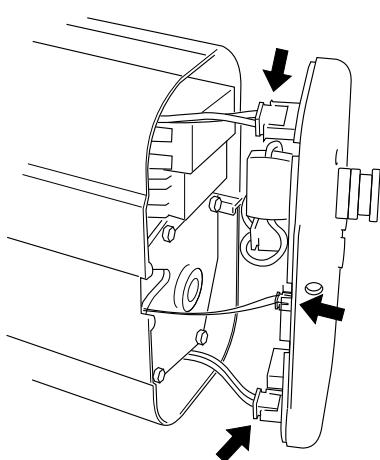
3SE650211-03  
2009-12-15

**Tools required:**


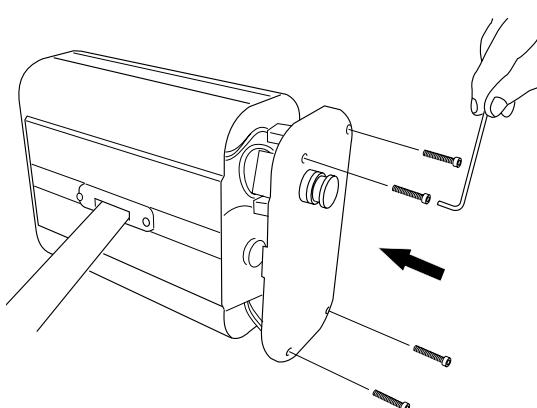
1. Remove the cover by unfastening the 4 screws.



2. Disconnect the contacts.



3. Mount the new cover with card and connect contacts.



4. Fasten the cover.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

## Assembly Instruction Monteringsanvisning

Prod. No. 31590011

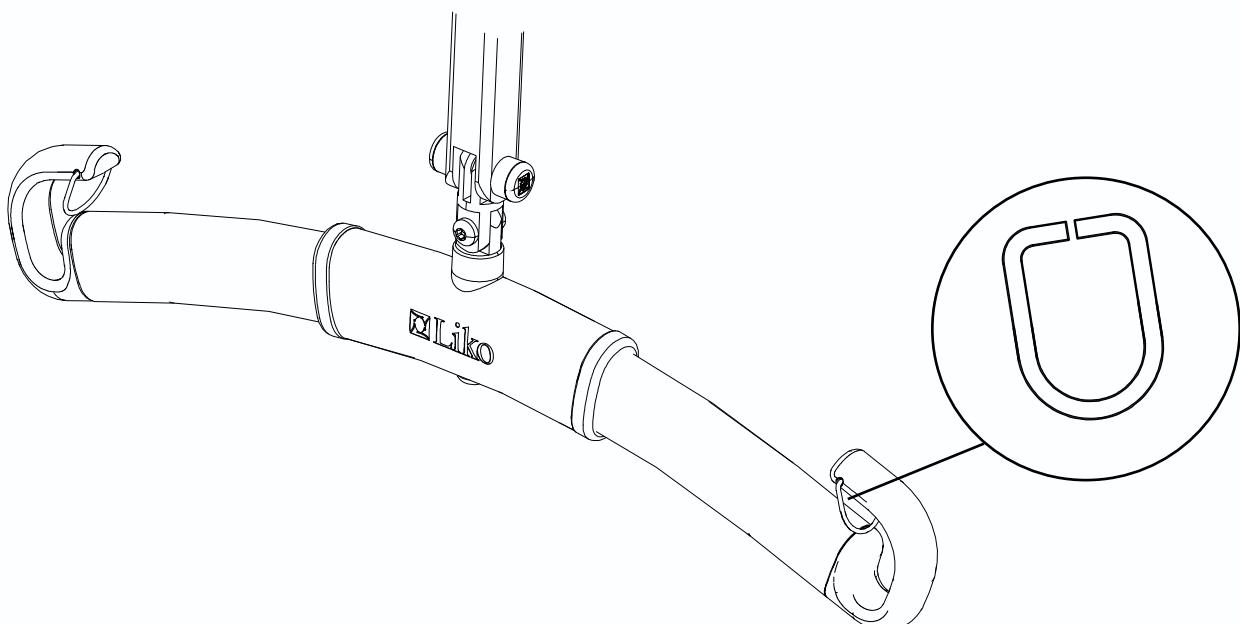
3SE630229-03  
2009-12-01

**Contains:**  
Safety latch

**Qty:**  
2

**Fits:**

3156074 Universal SlingBar 350  
3156075 Universal SlingBar 450  
3156076 Universal SlingBar 600  
3156077 Universal TwinBar 670  
3156079 Universal SideBars 450  
3156084 Universal SlingBar 350 with Quick-release Hook  
3156085 Universal SlingBar 450 with Quick-release Hook  
3156086 Universal SlingBar 600 with Quick-release Hook  
3156087 Universal TwinBar 670 with Quick-release Hook  
3156094 Universal SlingBar 350 R2R  
3156095 Universal SlingBar 450 R2R



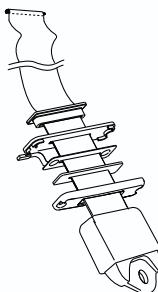
**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

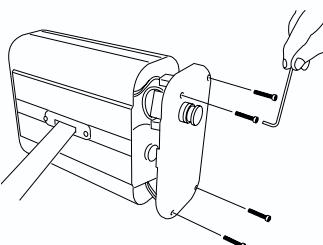
**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290067**
**3SE630246-04**  
**2010-01-19**
**Tools required:**

**Contains:**

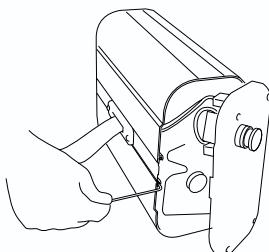
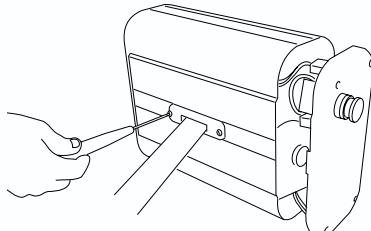
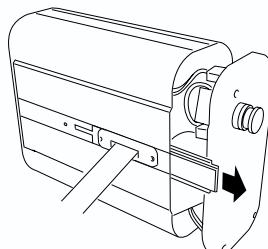
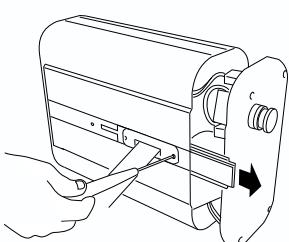
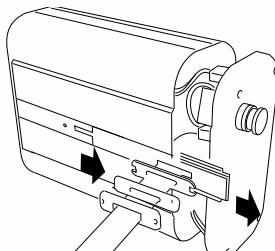
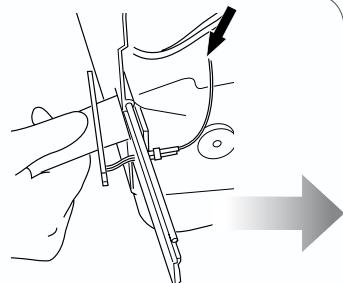
	<b>Qty:</b>
Screw MCS M3x55	1
Locking nut M3 Nyloc	1
Strap joint plastic cover	1
Lift strap joint	1
Pressure case	1
Lift strap safety pin 4mm	1
Lift strap B50 black	1

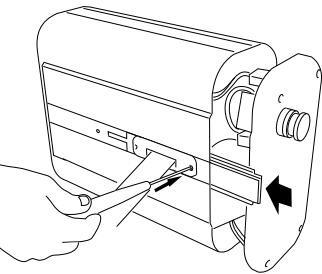

**Fits:**

- Likorall 242 S from S/N 262603
- Likorall 242 ES from S/N 423745
- Likorall 243 ES
- Likorall 250 ES

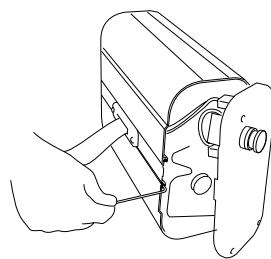

**1. Remove the end cover.**

Drive the lift strap out to its maximum position.

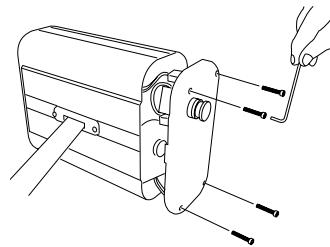

**2. Drive the lift strap upwards just so you can see that the drum is in line with the plate. Remove the two locking screws from the locking rail.**

**3. Remove the left sides locking screw from the pressure case.**

**4. Pull out the strap and Limiting switch together with the locking rail.**

**5. Remove the locking screw from the cover.**

**6. Remove the strap from the motor. Then the SSP limiting switch and locking rail.**

**7. Assemble new strap and limiting switch in the locking rail.**  
**Note!** Connect the limiting switch to the cable.



8. Put together the SSP Limiting switch and tighten the screw. Pull in the strap guide and the Locking rail.



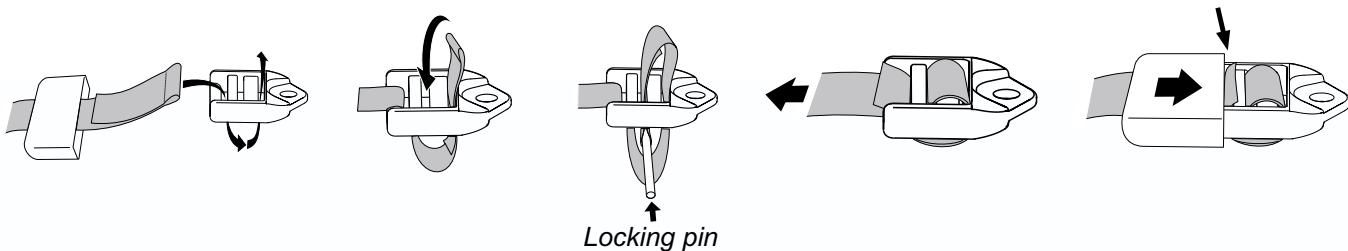
9. Tighten the two locking screws from the locking rail.



10. Assemble the Likorall in reverse order.

### The spare part is mounted to the lift strap joint

This shows the correct installation of lift strap - lift strap joint



#### △ NOTE

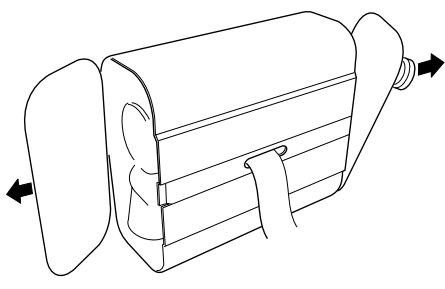
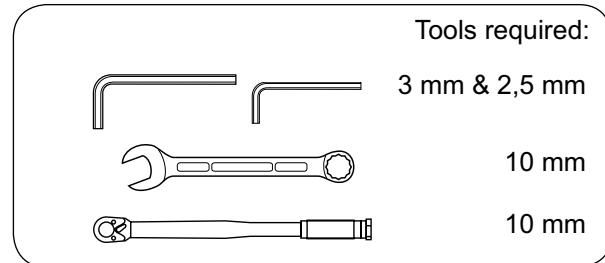
- After changing lift strap the SSP Limit Switch must be tested by lifting maximum load all the way up to the highest position through the entire lifting range.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290068**
**Contains:**

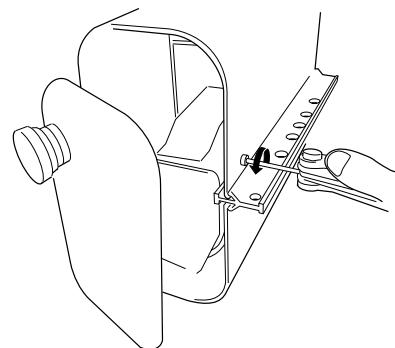
Motor SWMF 403939 LR 1  
Woodruf Wedge 1

**Fits:**

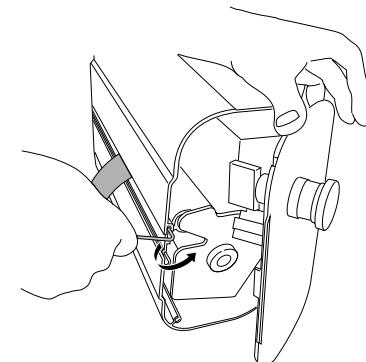
Likorall 240

**Qty:**


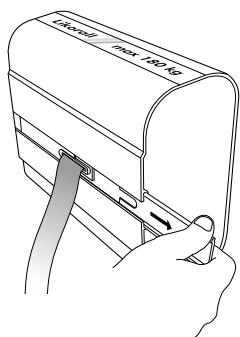
1. Remove the two end covers



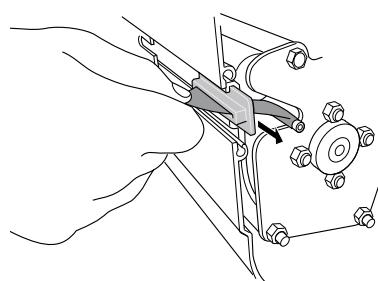
2. Remove the locking screw from the cover.



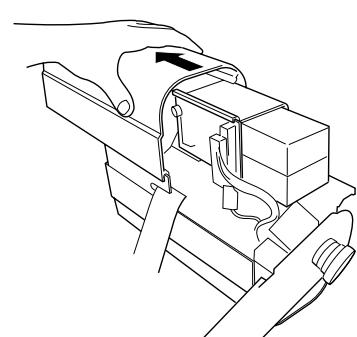
3. Remove the two locking screws from the locking rail.



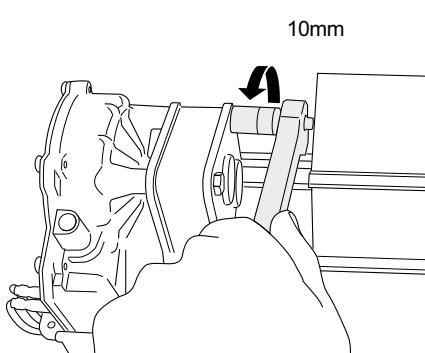
4. Pull out the locking rail.



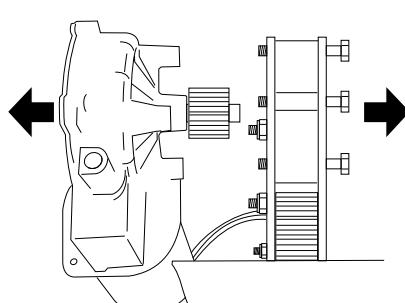
5. Drive the lift strap back a little so you can see that the drum is in line with the plate. Pull out the liftstrap.



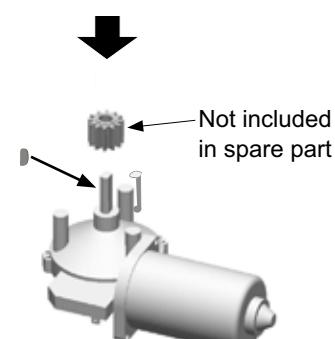
6. Remove the cover from the actuator.

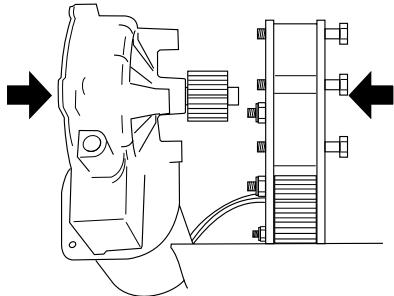


7. Dismount the motor screws.

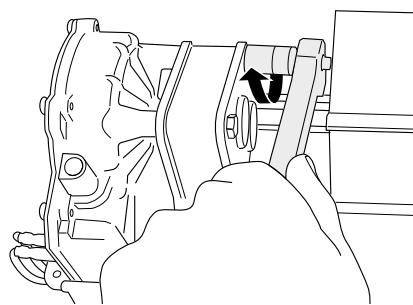
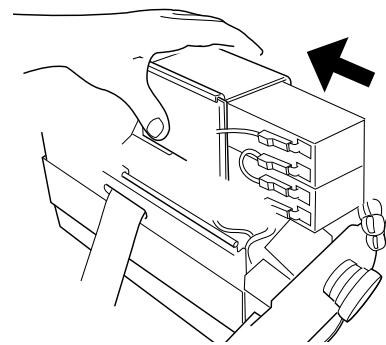


8. Dismount the motor.

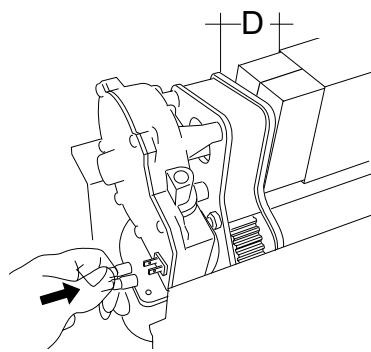
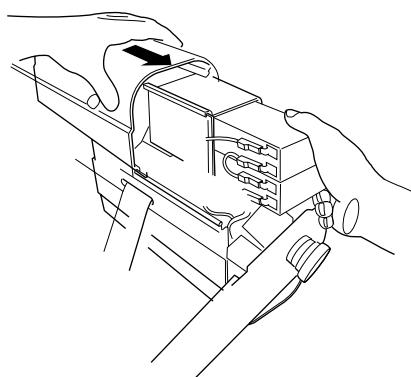

9. Assemble the gear wheel and the wedge on the new motor.  
Not included in spare part



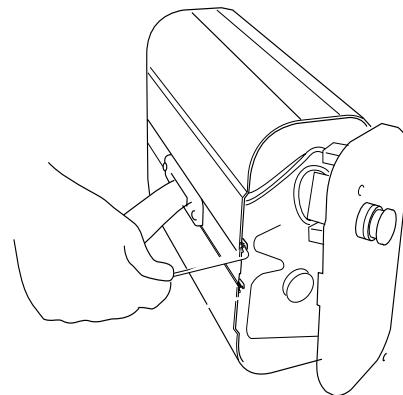
10. Reassemble the motor.

11. Tighten the motor screws with tightening torque  $9,5 \text{ Nm} \pm 5\%$ 

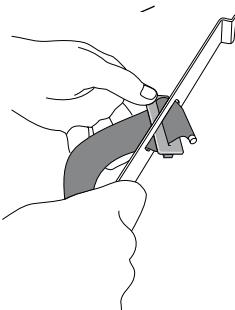
12. Press the battery and the battery holder to the left.

13. Connect the motor cable.  
 $D = 34 \pm 5 \text{ mm}$ 

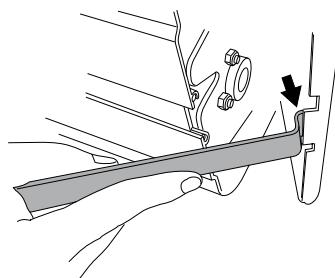
14. Assemble the side cover.



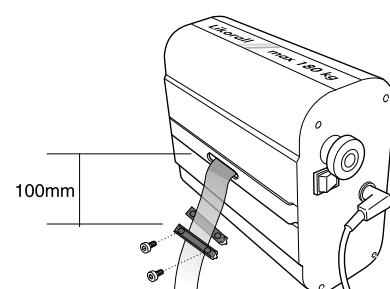
15. Tighten the locking screw at the locking rail.



16. Mount the lift strap through the squeeze protection.



17. Mount the squeeze protection between the switch and the cover.



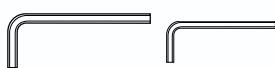
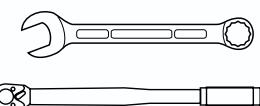
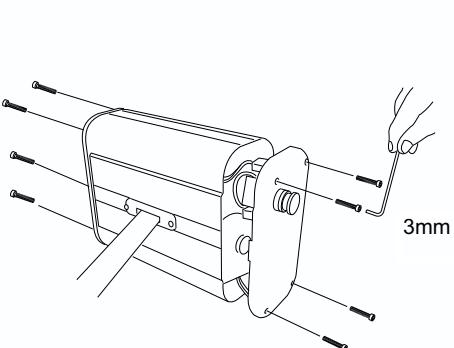
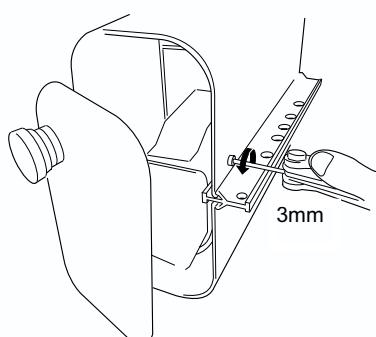
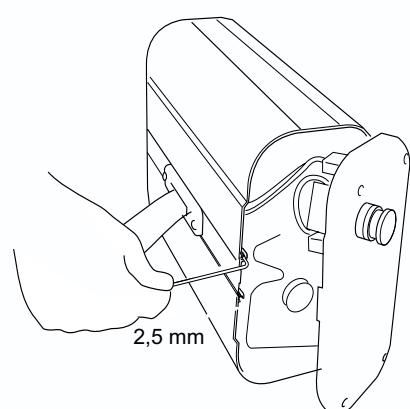
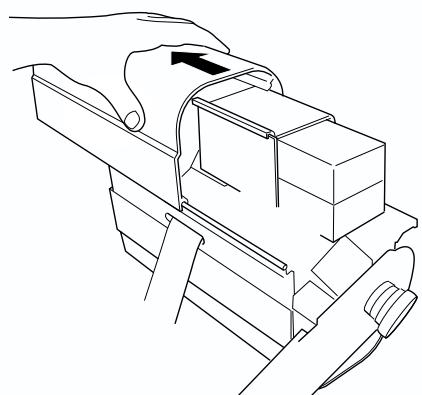
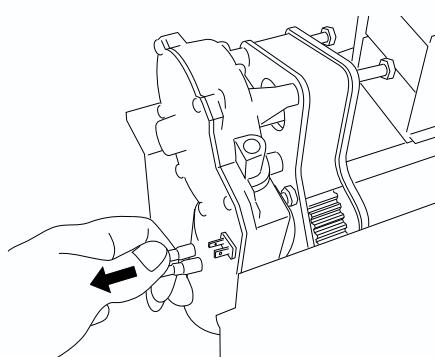
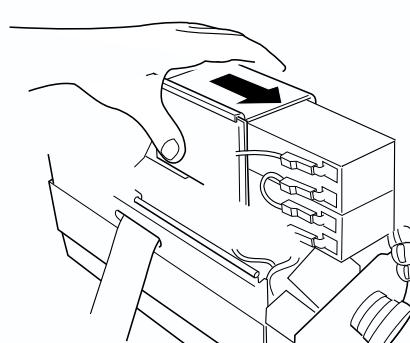
18. Pull the strap in to the highest position. Feed out 10 cm. Mount the strap stop on the lift strap.

**△ NOTE**

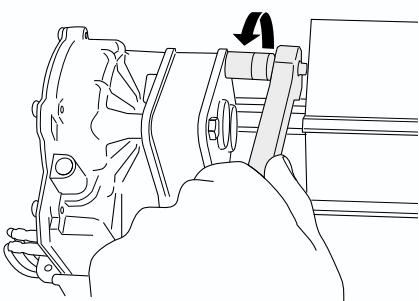
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290069**
**3SE650202-06**  
**2009-12-18**
**Contains:**  
Motor LR 242      **Qty:** 1  
Wedge                      2

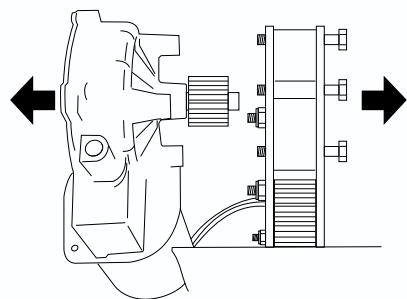
**Fits:**  
Likorall 200  
Likorall 242  
Likorall 243  
Likorall 250

**Tools required:**

**3 mm & 2,5 mm**

**10 mm**
**10 mm**

**1. Dismount the two end covers.**

**2. Dismount the locking screw from side cover.**

**3. Dismount the locking screw from the locking rail.**

**4. Dismount the side cover.**

**5. Disconnect the motor cable.**

**6. Press the battery and the battery holder to the right.**

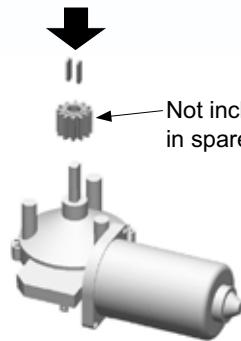
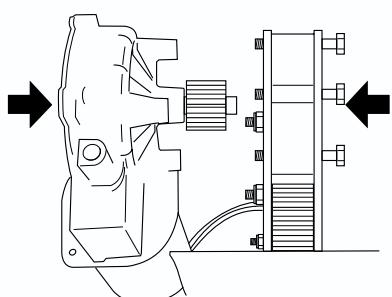
10mm



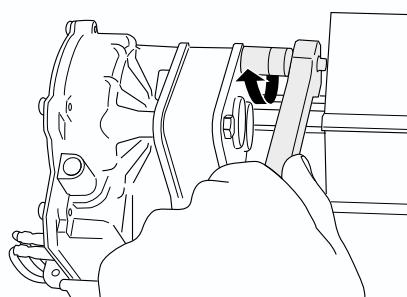
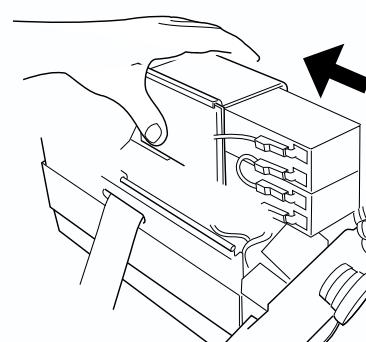
7. Dismount the motor screws.



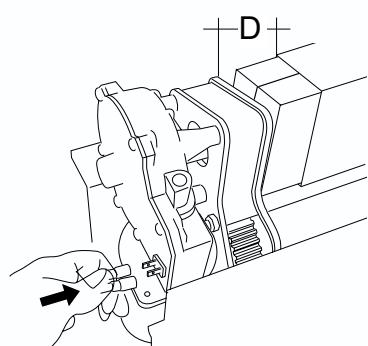
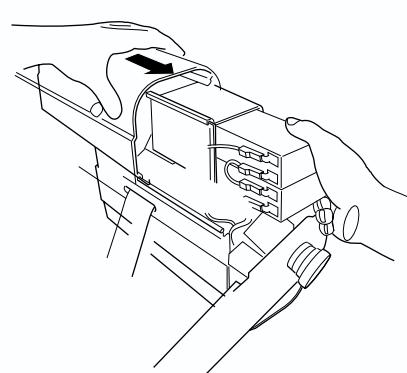
8. Dismount the motor.

9. Assemble the gear wheel and the two wedges on the new motor.

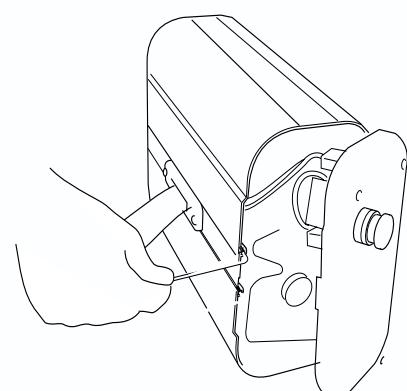
10. Reassemble the motor.

11. Tighten the motor screws with tightening torque  $9,5 \text{ Nm} \pm 5\%$ 

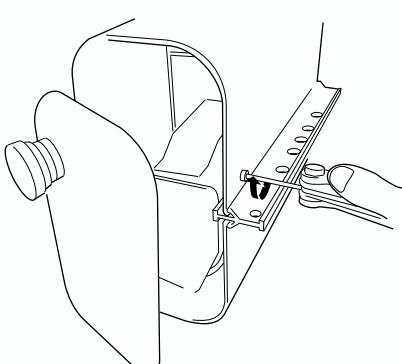
12. Press the battery and the battery holder to the left.

13. Connect the motor cable.  
D =  $34 \pm 5 \text{ mm}$ 

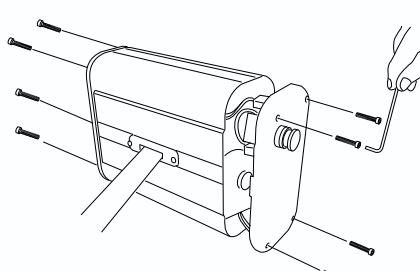
14. Assemble the side cover.



15. Tighten the locking screw at the locking rail.



16. Tighten the locking screw on the side cover.



17. Assemble the two endcovers.

**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

Prod. No.31290070

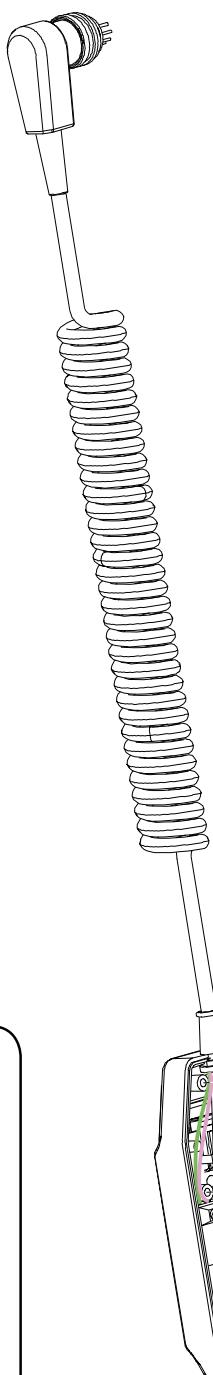
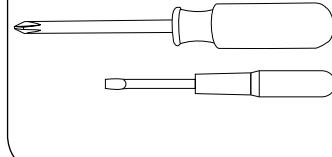
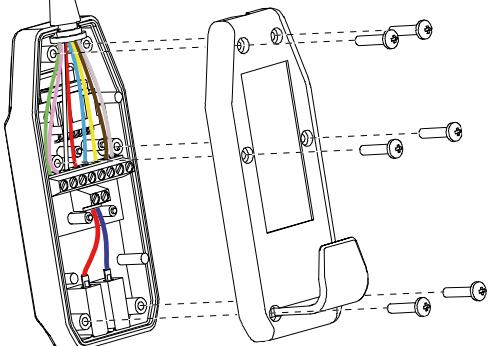
3SE650203-03  
2009-06-25

**Contains:**  
Cable f handc LR 242S,ES

**Qty:**  
1

**Fits:**  
Likorall 242ES/ 242ES R2R  
Likorall 242S/ 242S R2R  
Likorall 243ES/ 243ES R2R

Tools required:


**Cable scedule**  
(from left in the picture)  
1 Green  
2 Pink  
3 White  
4 Red  
5 Blue  
6 Yellow  
7 Brown  
8 Grey

**△ NOTE**

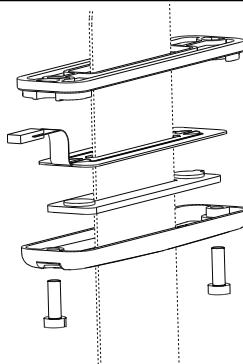
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Contains:**

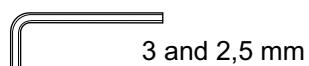
Squeeze protection, plate  
Pressure case  
Twist protection plate  
Screw MLC6S M4x12  
Squeeze protection, keybo  
Cable for Limit Switch

**Qty:**

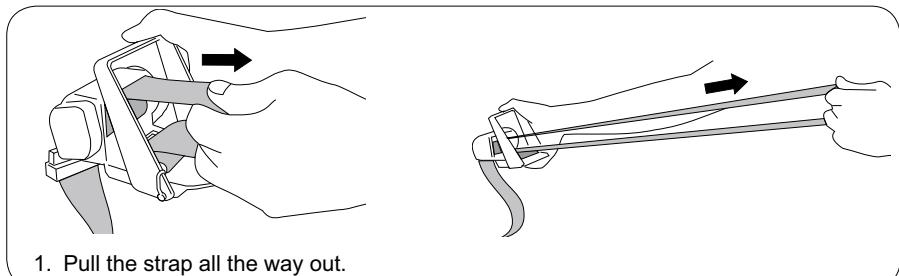
1  
1  
1  
2  
1  
1


**Fits:**

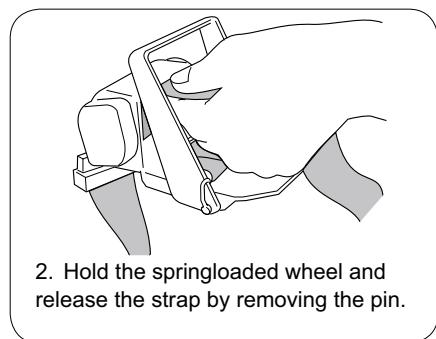
Likorall 242 S  
Likorall 242 ES

**Prod. No. 31390007**
**3SE650204-05**  
**2010-06-28**
**Tools required:**


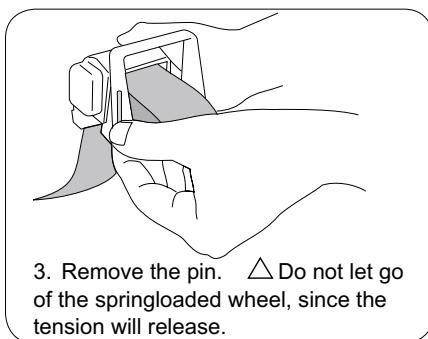
△Fits only liftstrap  
assembled with  
mechanical  
emergency lowering



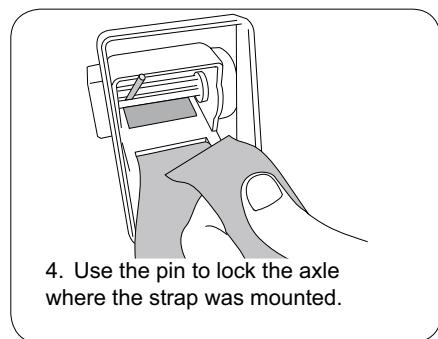
1. Pull the strap all the way out.



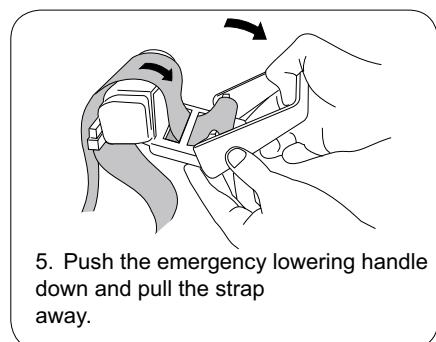
2. Hold the springloaded wheel and release the strap by removing the pin.



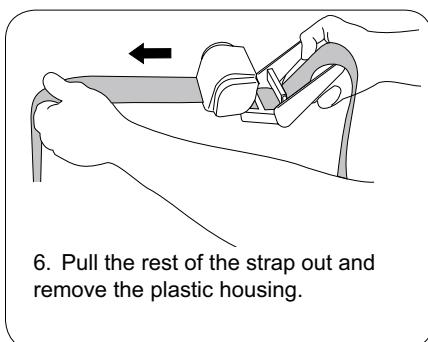
3. Remove the pin. △ Do not let go of the springloaded wheel, since the tension will release.



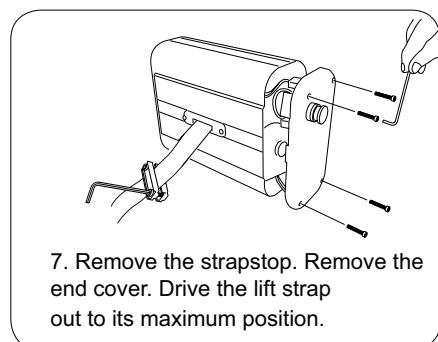
4. Use the pin to lock the axle where the strap was mounted.



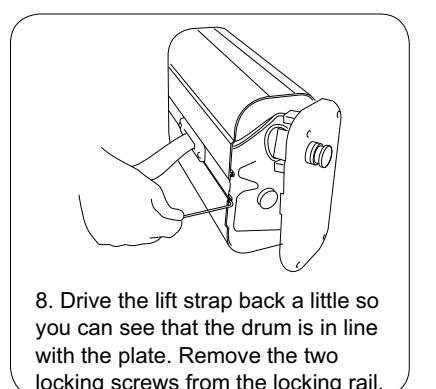
5. Push the emergency lowering handle down and pull the strap away.



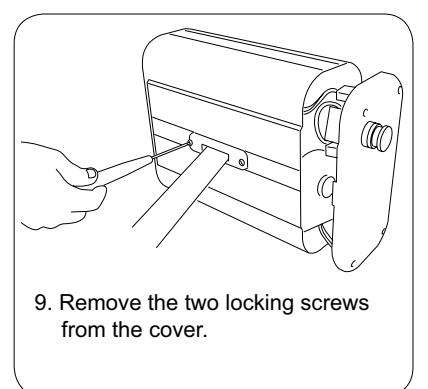
6. Pull the rest of the strap out and remove the plastic housing.



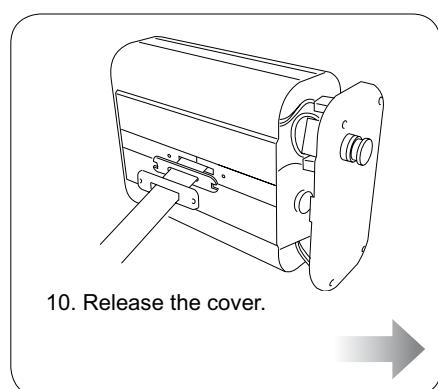
7. Remove the strapstop. Remove the end cover. Drive the lift strap out to its maximum position.



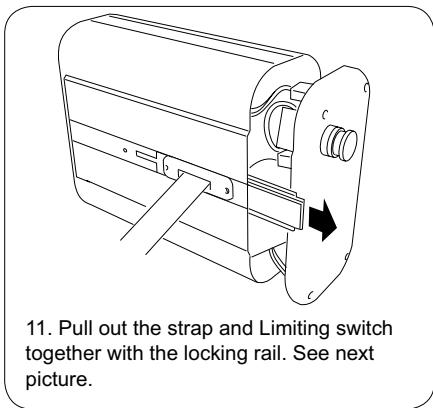
8. Drive the lift strap back a little so you can see that the drum is in line with the plate. Remove the two locking screws from the locking rail.



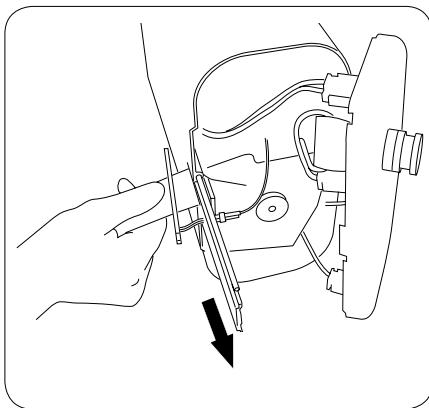
9. Remove the two locking screws from the cover.



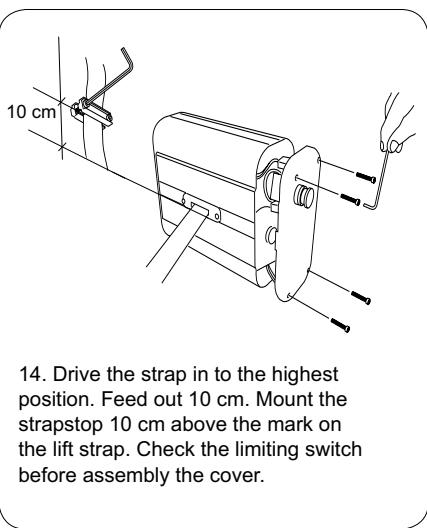
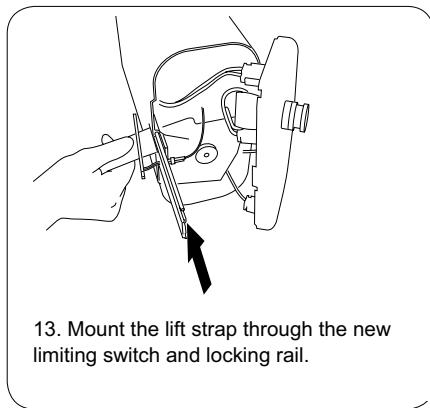
10. Release the cover.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31390007**


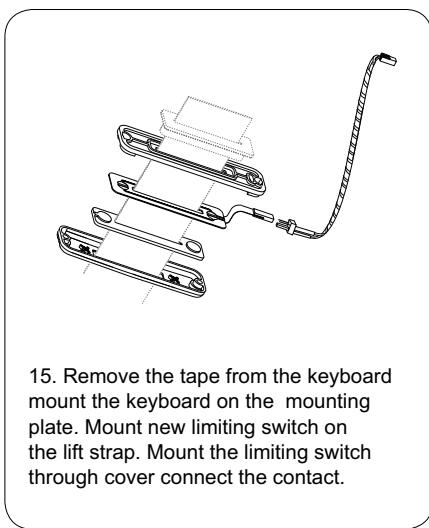
11. Pull out the strap and Limiting switch together with the locking rail. See next picture.



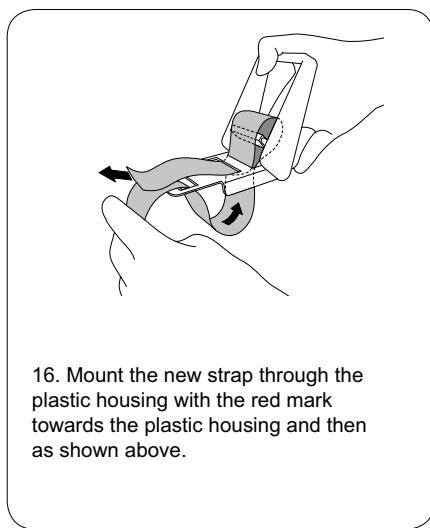
13. Mount the lift strap through the new limiting switch and locking rail.



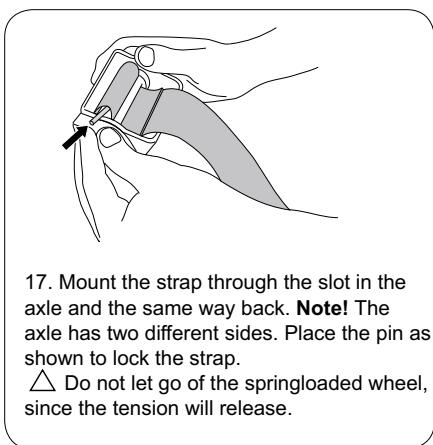
14. Drive the strap in to the highest position. Feed out 10 cm. Mount the strapstop 10 cm above the mark on the lift strap. Check the limiting switch before assembly the cover.



15. Remove the tape from the keyboard mount the keyboard on the mounting plate. Mount new limiting switch on the lift strap. Mount the limiting switch through cover connect the contact.

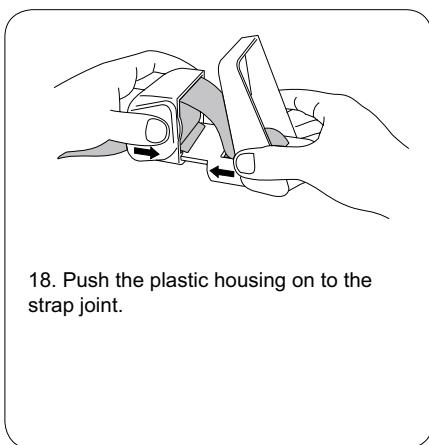


16. Mount the new strap through the plastic housing with the red mark towards the plastic housing and then as shown above.

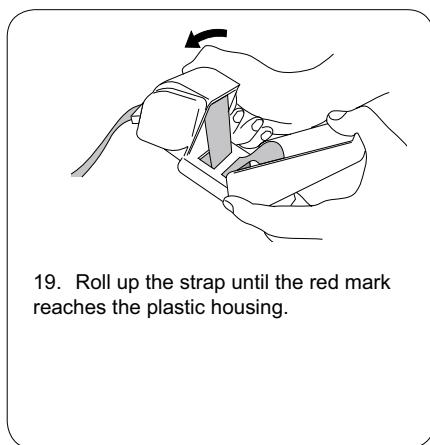


17. Mount the strap through the slot in the axle and the same way back. **Note!** The axle has two different sides. Place the pin as shown to lock the strap.

△ Do not let go of the springloaded wheel, since the tension will release.



18. Push the plastic housing on to the strap joint.



19. Roll up the strap until the red mark reaches the plastic housing.

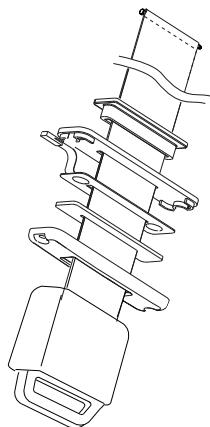
**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

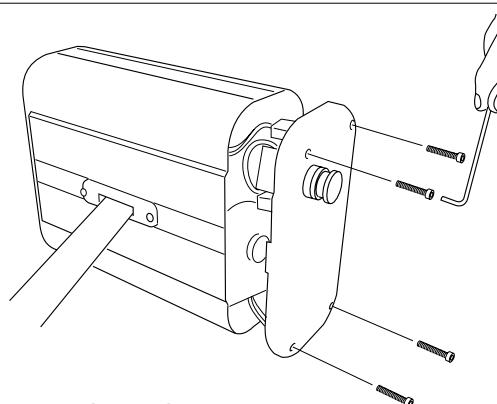
**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290071**
**3SE640228-04**  
**2010-06-18**
**Tools required:**

**3 and 2,5 mm**
**Contains:**

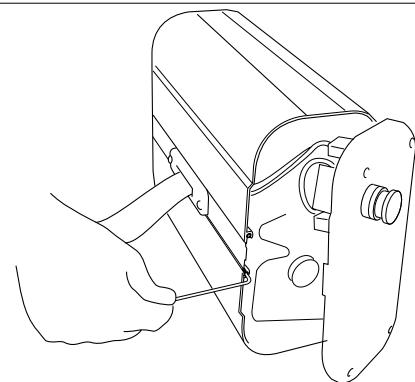
	<b>Qty:</b>
Lift strap	1
Lift strap safety pin 4mm	1
Strap joint plastic cover	1
Lift strap joint	1
Pressure case	1
Lift strap B50 black	1
Squeeze protection, plate	1
Twist protection plate	1
Strap guide (plastic)	1
Squeeze protection, keyboard	1
Screw MCS M3x55	1
Locking nut M3 Nyloc	1
Screw MLC6S M4x12	2


**Fits:**

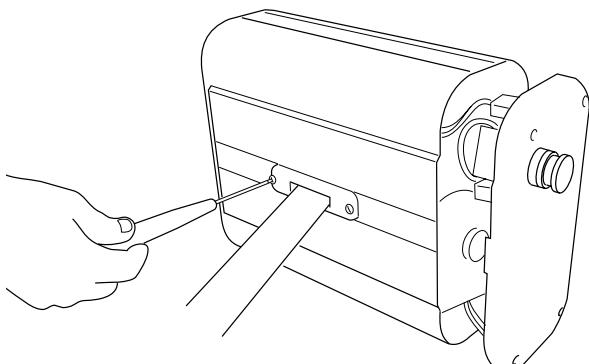
Likorall 242 S from S/N 262603  
Likorall 242 ES from S/N 423745  
Likorall 243 ES  
Likorall 250 ES,  
Likorall 250 S IRC



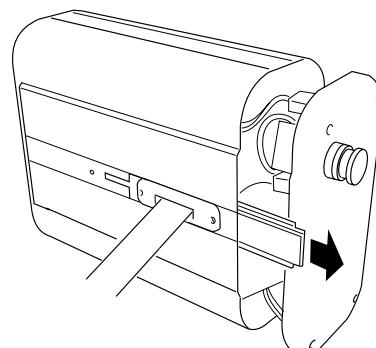
1. Remove the end cover.  
Drive the lift strap out to its maximum position.



2. Drive the lift strap upwards just so you can see that the drum is in line with the plate.  
Remove the two locking screws from the locking rail.



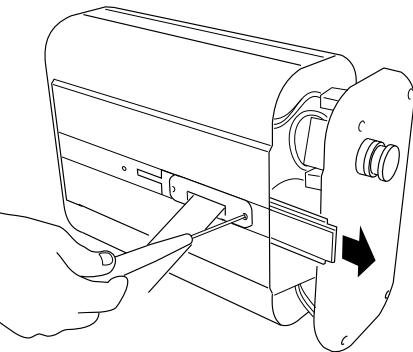
3. Remove the left sides locking screw from the pressure case.



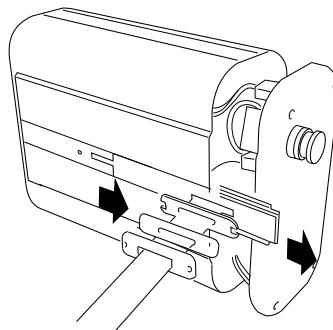
4. Pull out the strap and Limiting switch together with the locking rail.

**Assembly Instruction**  
**Monteringsanvisning**

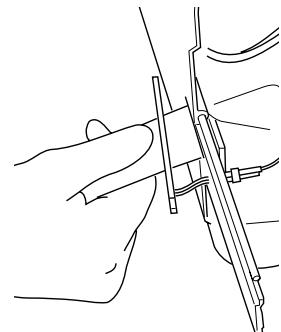
Prod. No. 31290071



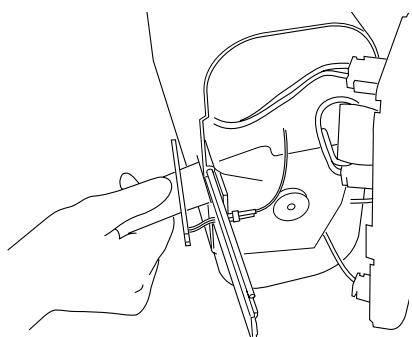
5. Remove the other locking screw from the pressure case.



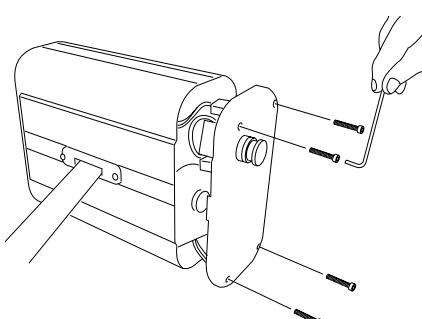
6. Remove the strap from the motor. Then the SSP limiting switch and locking rail.



7. Assemble new strap. Connect the limiting switch to the cable.



8. Assemble the new liftstrap and limit switch with the locking rail.



9. Assemble the Likorall in reverse order.

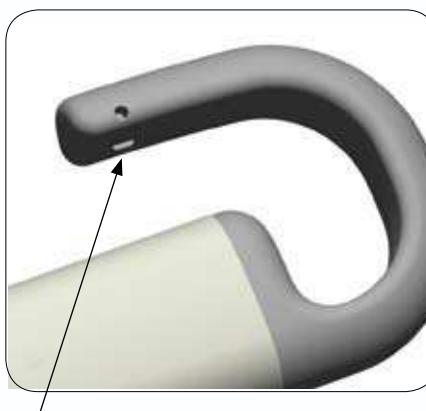
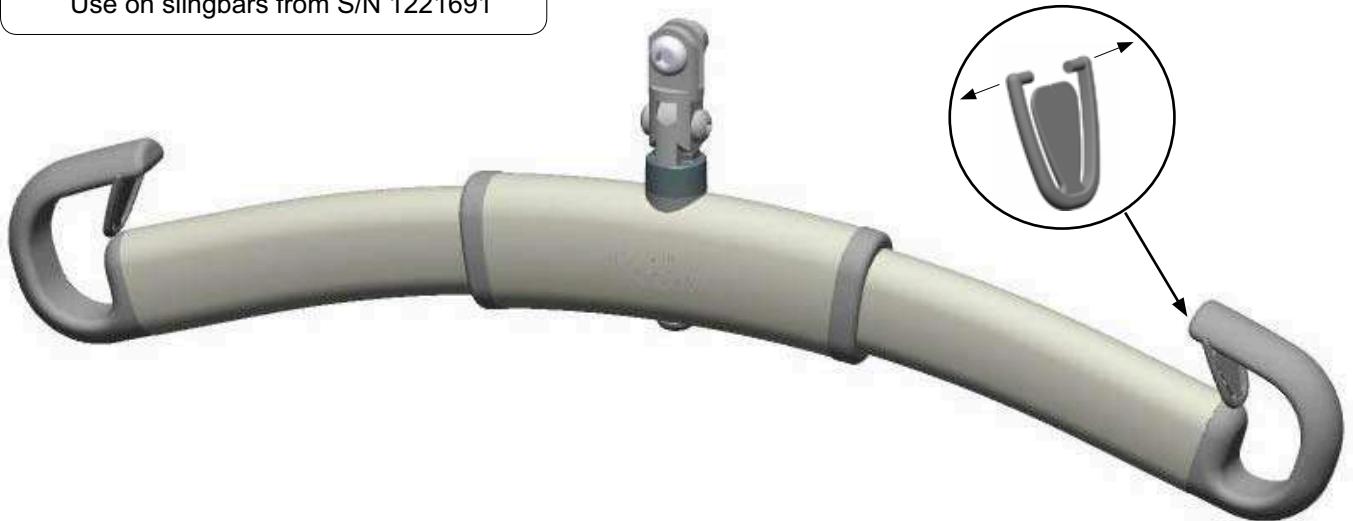
**△ NOTE**

- After changing lift strap the SSP Limit Switch must be tested by lifting maximum load all the way up to the highest position through the entire lifting range.
- With the emergency stop out, move the lift strap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31590014**
**3SE640242-03**  
2009-12-01

**Contains:**  
Safety latch composite      **Qty:**  
2

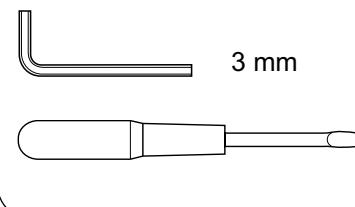
**Fits:**  
3156074 Universal SlingBar 350  
3156075 Universal SlingBar 450  
3156076 Universal SlingBar 600  
3156077 Universal TwinBar 670  
3156079 Universal SideBars 450  
3156084 Universal SlingBar 350 with Quick-release Hook  
3156085 Universal SlingBar 450 with Quick-release Hook  
3156086 Universal SlingBar 600 with Quick-release Hook  
3156087 Universal TwinBar 670 with Quick-release Hook  
3156094 Universal SlingBar 350 R2R  
3156095 Universal SlingBar 450 R2R

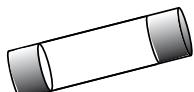
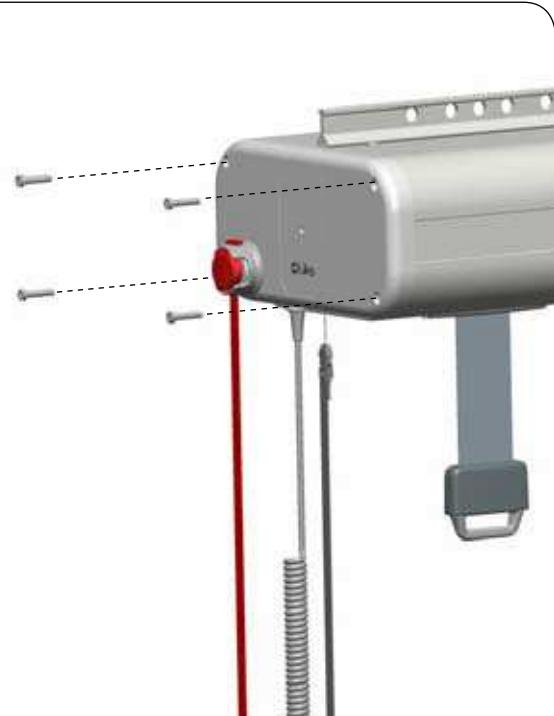
**Use on slingbars from S/N 1221691**


The Safety latch can only be used on composite hooks equipped with a locator.

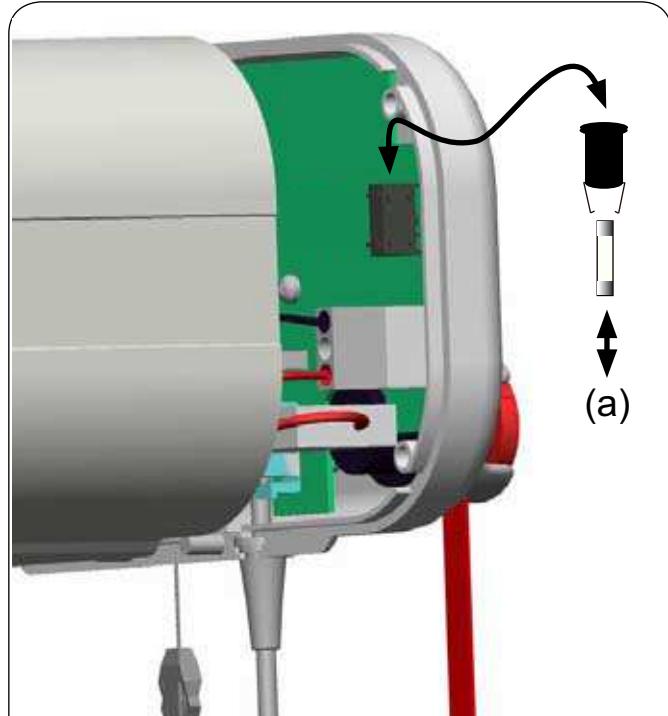
**△ NOTE**

- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290079**
**3SE640238-01**  
**2010-02-01**
**Tools required:**

**Contains:**  
Fuse 12,5A

**Qty:**  
10

**Fits:**  
Likorall 242  
Likorall 243  
Likorall 250


1. Remove the screws, pull apart the cover.



2. Unscrew the top of the fuse holder. Change the fuse (a). Assemble the cover.

**△ NOTE**

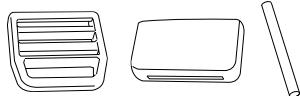
- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Contains:**

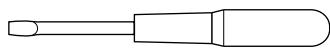
Lift strap joint  
 Strap joint plastic cover  
 Lift strap safety pin 4 mm

**Qty:**

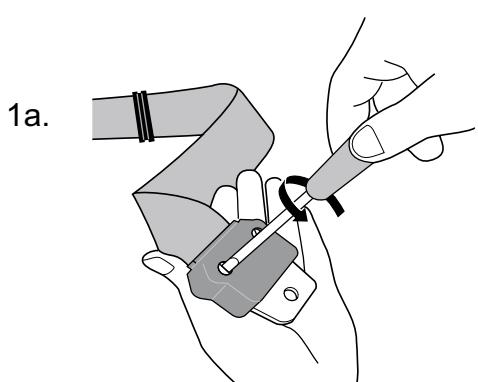
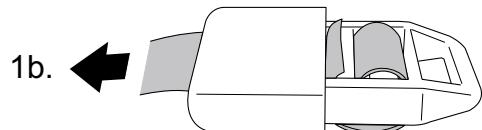
1  
 1  
 1


**Prod. No. 31590005**
**3SE640236-02**
**2010-05-10**
**Fits:**

Extension belts  
 Golvo 7000/7007  
 Golvo 8000/8008  
 Likorall  
 Multirall 200

**Tools required**
**1 X**

**Important!**

For safety reasons, it is essential that this component is correctly fitted to the lift according to these instructions.

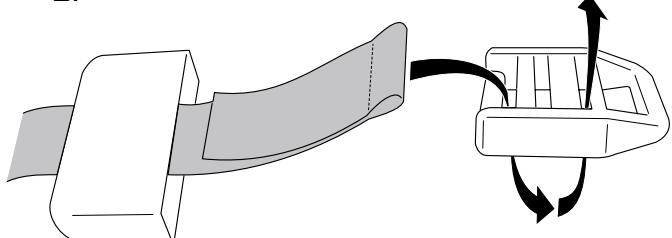
**Disassemble:**

**alt:**


## Assembly Instruction Monteringsanvisning

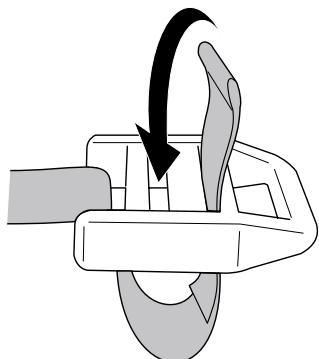
Prod. No. 31590005

### Assemble:

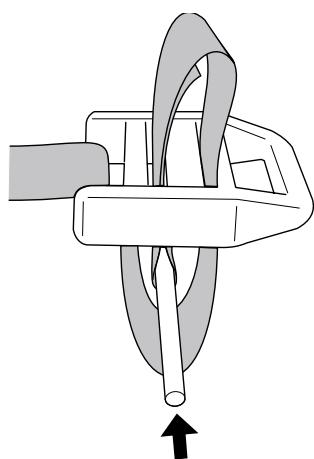
2.



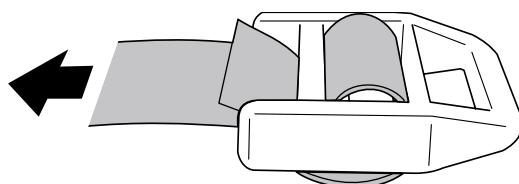
3.



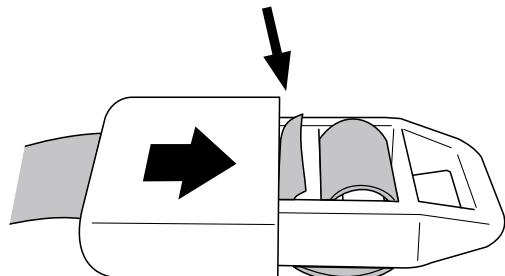
4.



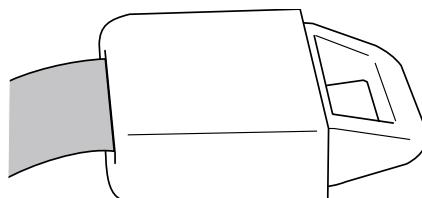
5.



6.



7.



### △ NOTE

- After changing Q-link, the assembly must be tested by lifting maximum load all the way up to the highest position.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

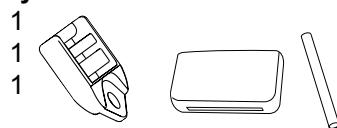
**Assembly Instruction**  
**Monteringsanvisning**

Prod. No. 31590025

3SE640237-02  
2010-05-10

**Contains:**  
Lift strap joint  
Strap joint plastic cover  
Lift strap safety pin 4mm

**Qty:**



**Fits:**  
Golvo 7000/7007  
Golvo 8000/8008  
Likorall

Tools required

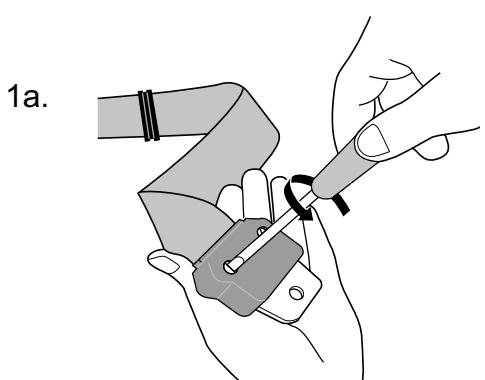
1 X



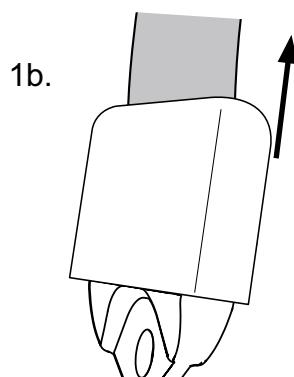
**Important!**

For safety reasons, it is essential that this component is correctly fitted to the lift according to these instructions.

Disassemble:



alt:

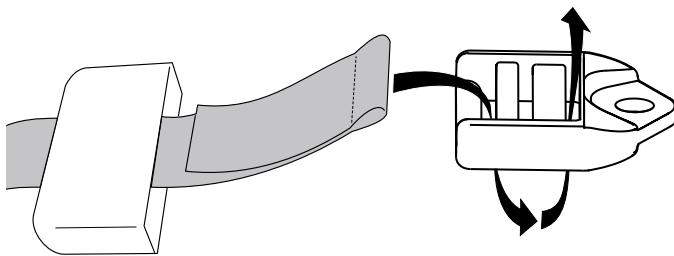


**Assembly Instruction**  
**Monteringsanvisning**

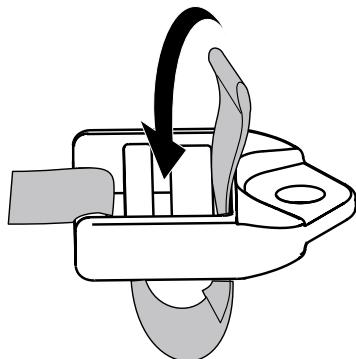
Prod. No. 31590025

Assemble:

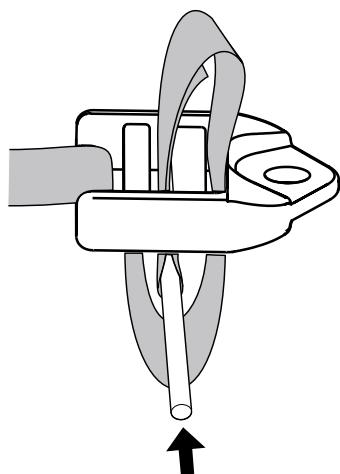
2.



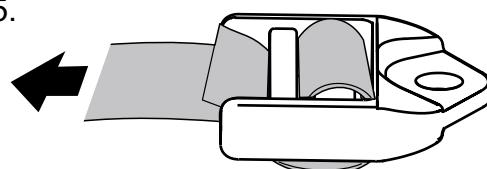
3.



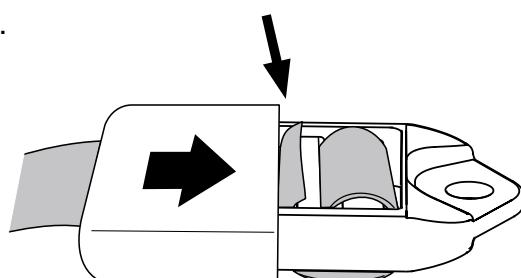
4.



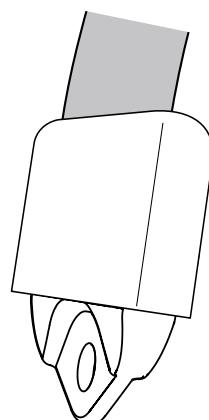
5.



6.



7.



**△ NOTE**

- After changing Lift strap joint, the assembly must be tested by lifting maximum load all the way up to the highest position.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

**Contains:**  
Emergency stop

**Qty:**  
1



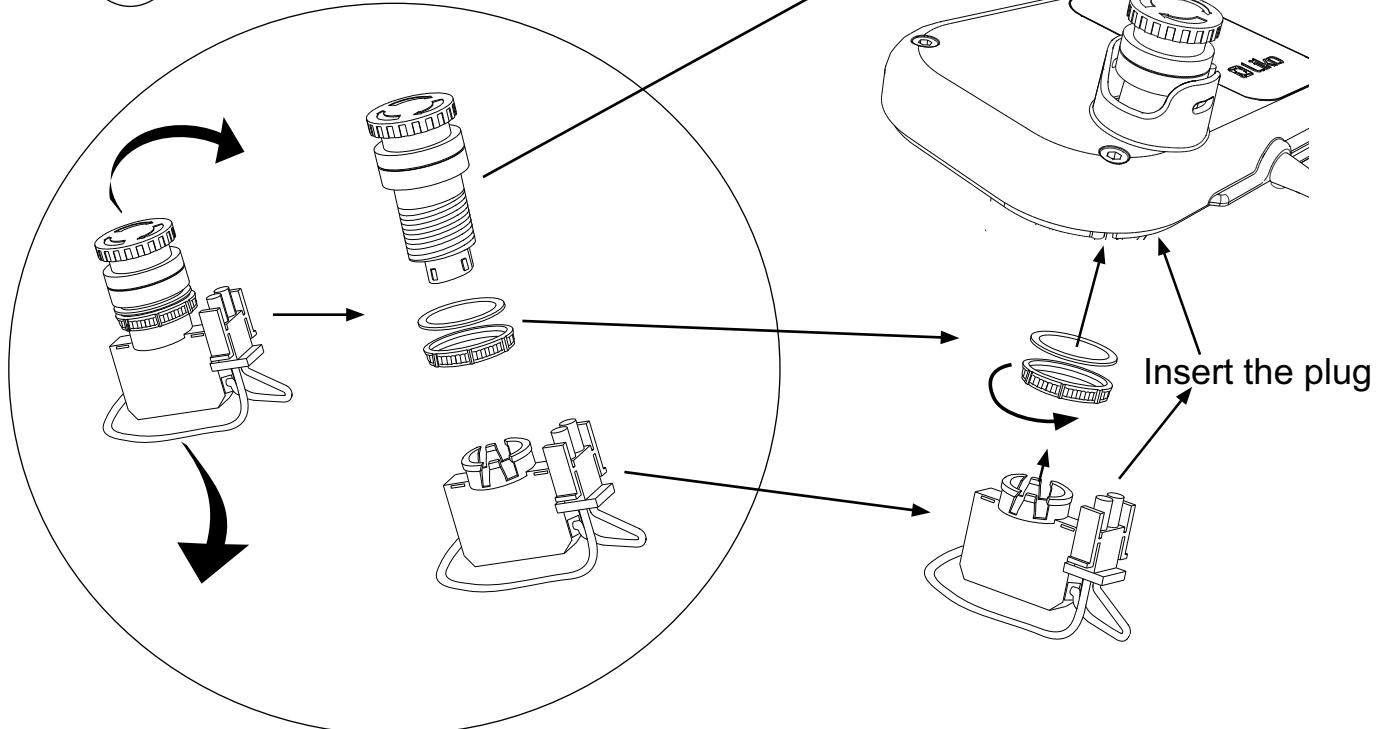
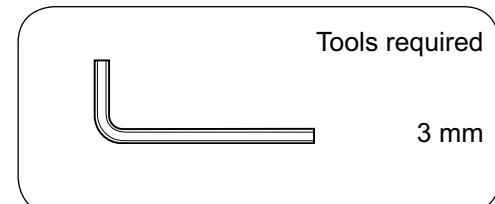
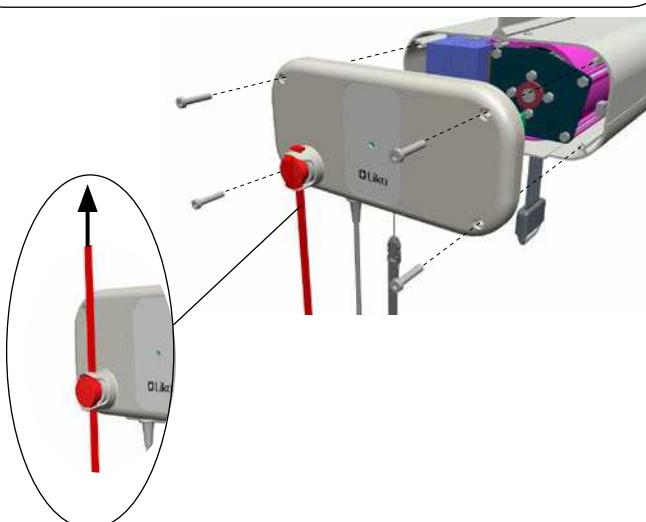
**Fits:**  
Likorall 200  
Likorall 240  
Likorall 242  
Likorall 243  
Likorall 250

Prod. No. 31290080

3SE650250-02  
2010-06-18

Tools required

3 mm



**△ NOTE**

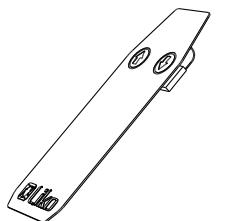
- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**

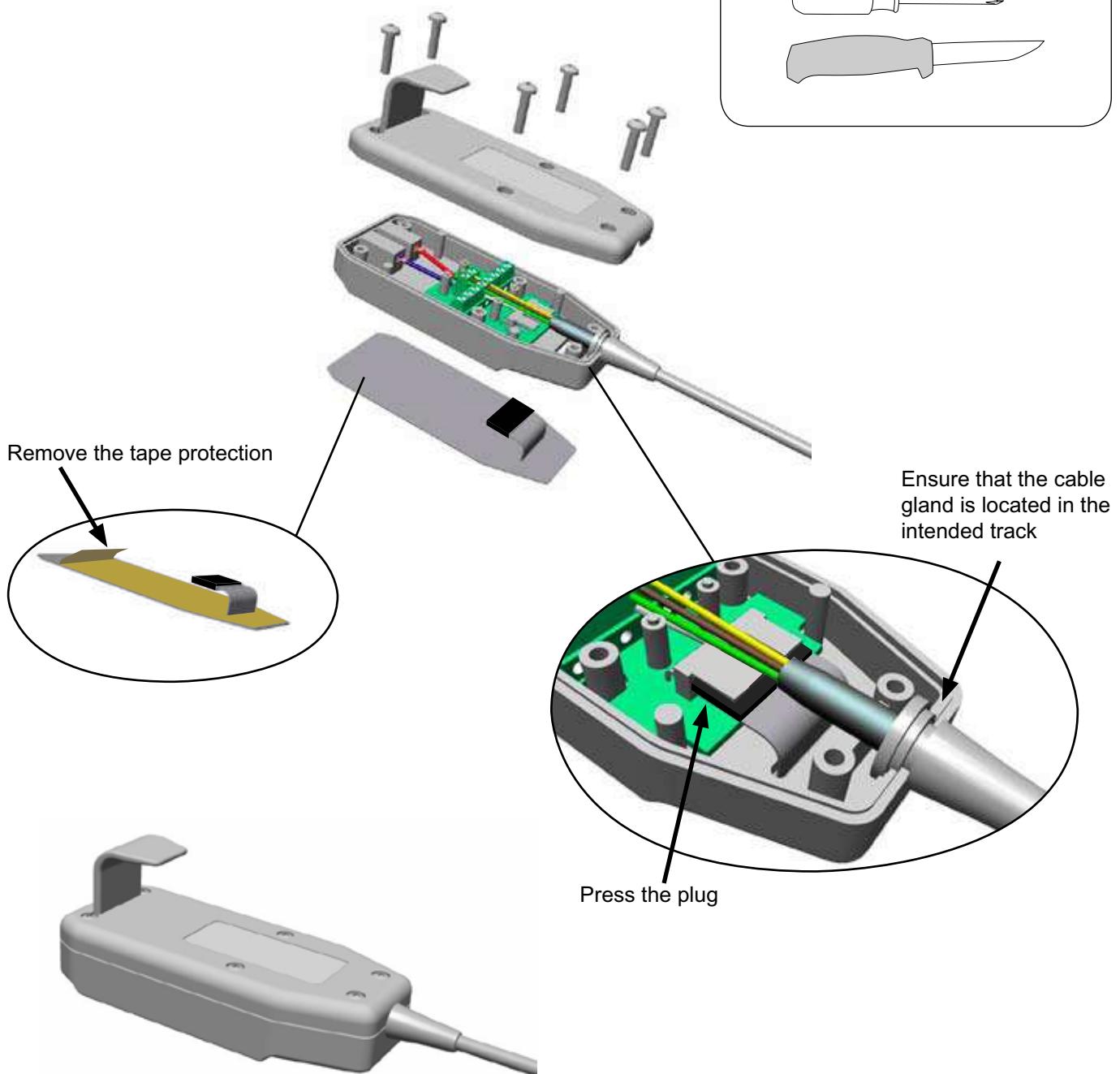
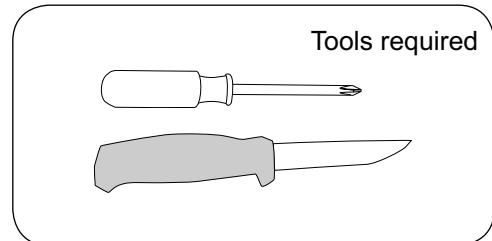
Prod. No. 21090038

3SE650261-01  
2010-02-25

**Contains:**  
Key pad hand control 2-buttons 1

**Fits:**  
Hand control 2-buttons, LR, MR  
Prod. No. 3126031, 3126033, 3136001


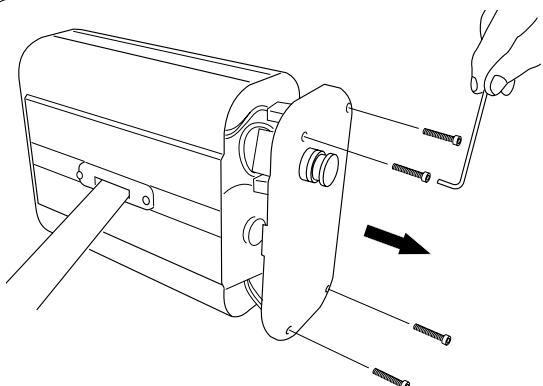
Remove the old Key pad by carefully using a sharp tool.


**△ NOTE**

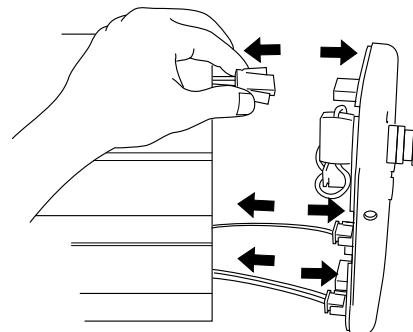
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290085**
**3SE650262-01**  
**2010-06-18**
**Contains:**  
Cover LR250 S IRC complete      **Qty:**  
1

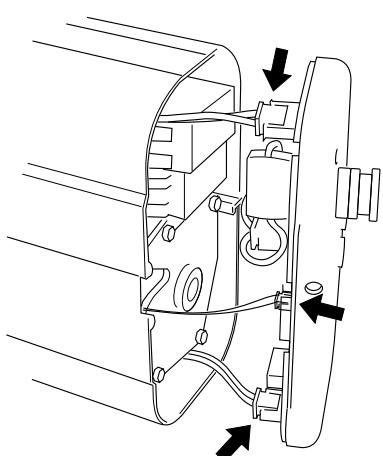
**Fits:**  
Likorall 250 S IRC

**Tools required:**


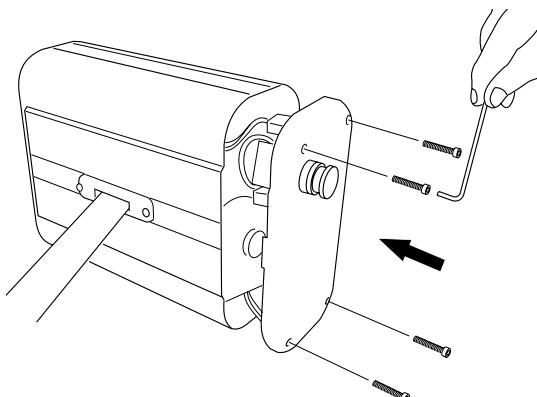
1. Remove the cover by unfasten the 4 screws.



2. Disconnect the contacts.



3. Mount the new cover with card and connect contacts.



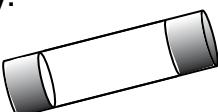
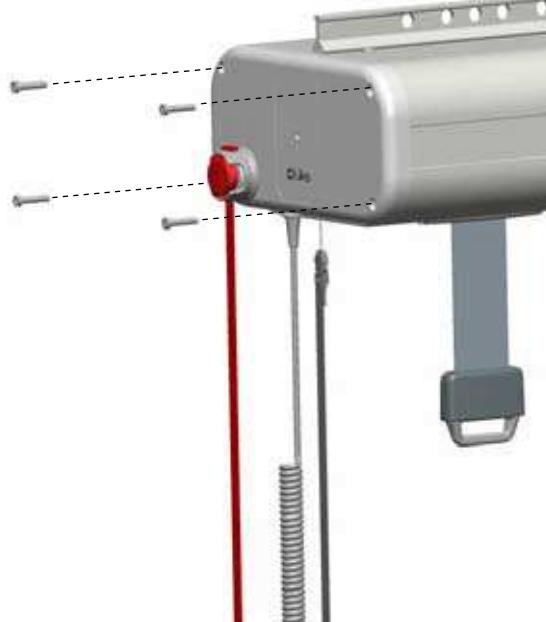
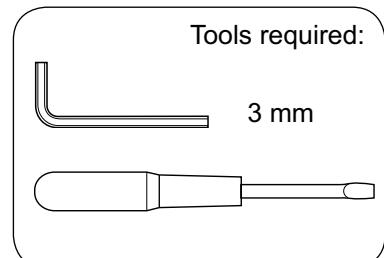
4. Fasten the cover.

**△ NOTE**

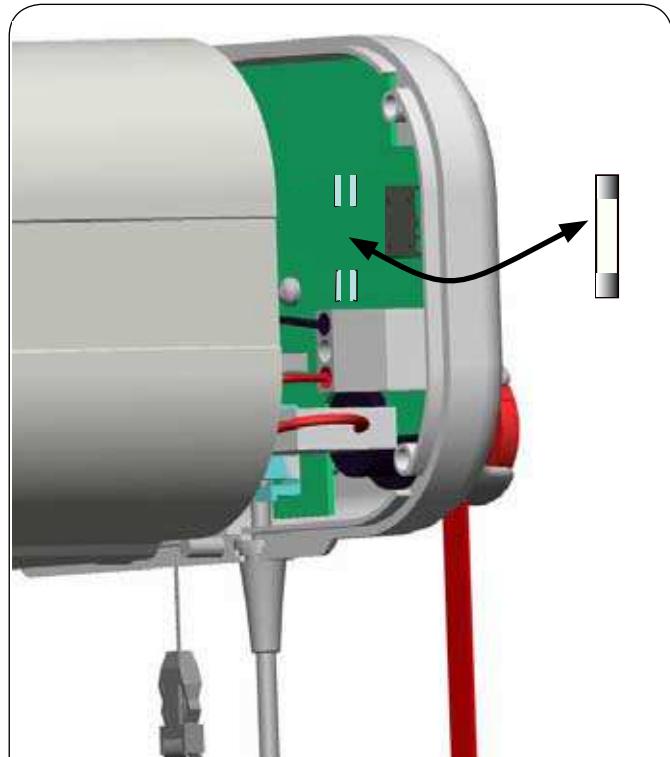
- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

**Assembly Instruction**  
**Monteringsanvisning**
**Prod. No. 31290086**
**3SE650271-01**  
**2010-06-18**
**Tools required:**
 3 mm

**Contains:**  
Fuse 12 A

**Qty:**  
10

**Fits:**  
Likorall 250 S IRC


1. Remove the screws, pull apart the cover.



2. Assemble the new fuse. Fasten the cover.

**△ NOTE**

- ESD protection is required.
- With the emergency stop out, move the liftstrap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Lift type: .....
Prod No: .....
Serial No: .....
Prod. Year: .....

**Customer Reference:**

Contract No: .....
Name: .....
Address: .....
(Zip Code) .....

The patient lift must be thoroughly inspected at least once per year.

Inspection and service must be carried by Liko authorized personnel. Instructions for check points, from next page.

**Check points:**

	Approved	To be actioned	Not approved	Comments:
1 Lift surfaces, finish etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
2 Carriages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
3 Emergency Stop function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
4 Hand control functions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
5 Electrical emergency lowering device	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
6 SSP Limit Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
7 Lift Strap for visible damage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
8a Mechanical emergency lowering (242)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
8b Fixed strap-stop (242)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
9 TDM & R2R Hook (200 & 242 R2R)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
10 Slingbar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
11 Charger function	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

**Load Testing**

12 Mechanical lowering load test (242)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
13 Maximum-load test	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....

**Documentation**

14 Instructions / Instruction guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	.....
-------------------------------------	--------------------------	--------------------------	--------------------------	-------

**Approval to use the patient lift**
 Approved

 To be actioned

 Not approved

If the patient lift has one or more check points with result "Not approved" the system must not be used. If the system has one or more check points with result "To be actioned" these actions should be performed immediatley. After performed actions sign below. If anything is unclear or if you have questions, please contact Liko or your local Liko representative. Contact information is to be found at [www.liko.com](http://www.liko.com).

**Inspection performed by:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Final approval by:** \_\_\_\_\_

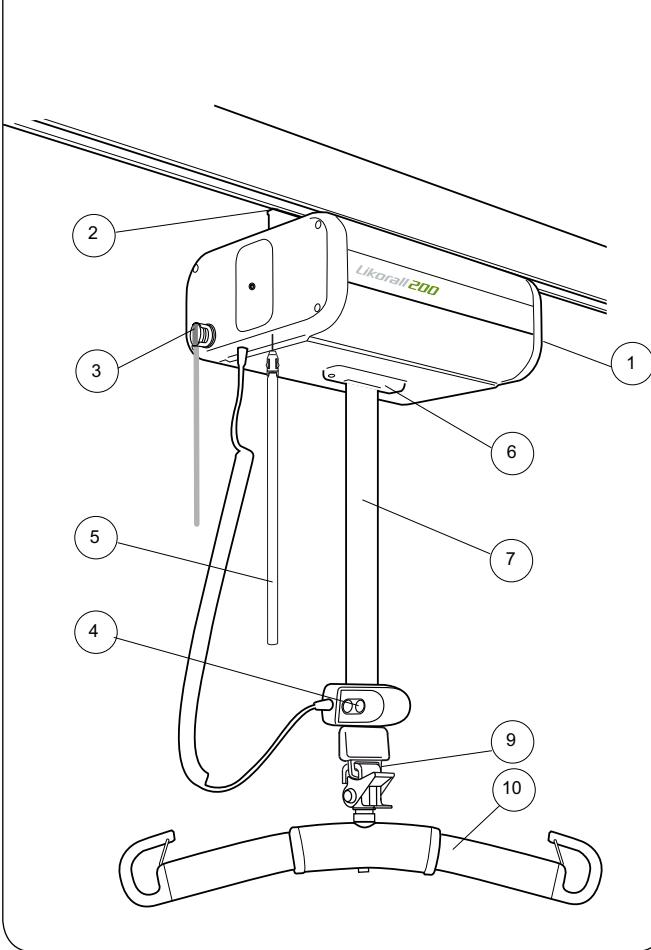
**Approval date:** \_\_\_\_\_

**Next inspection:** \_\_\_\_\_

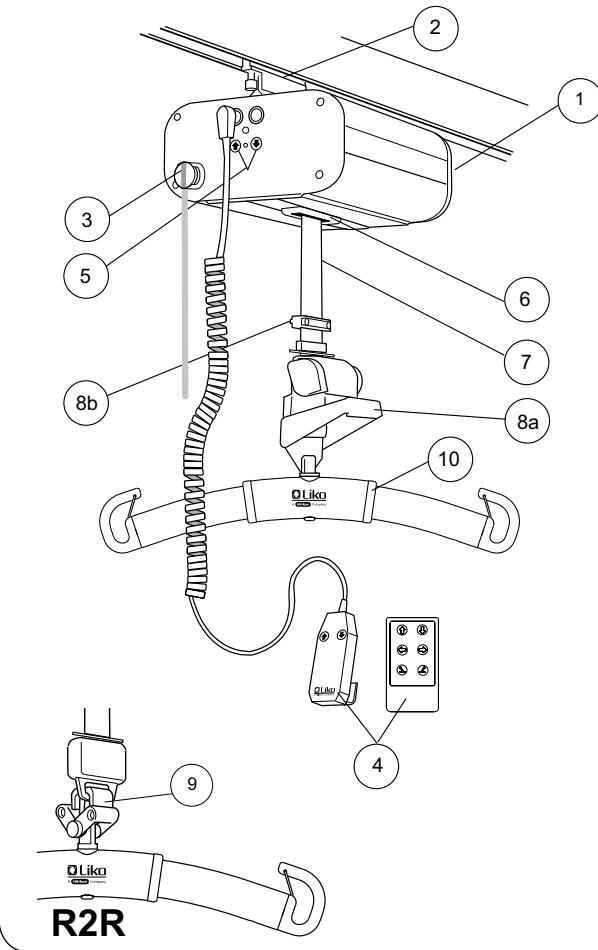
**Inspection performed in accordance with ISO 10535:2006 Annex B- Periodic inspection**

## Check points

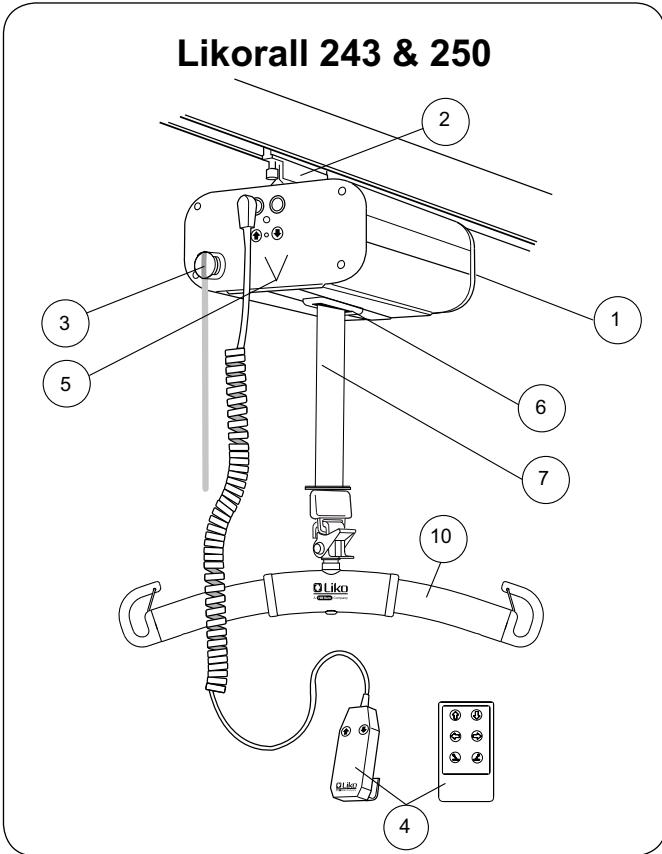
**Likorall 200**



**Likorall 242**



**Likorall 243 & 250**



# Instructions for the check points

## 1 Lift surfaces, finish etc.

- Verify presence of decal with model type and serial number.
- Check the front plastic cover for cracks.
- Check rear plastic cover for cracks and that the end-cover screws are in place.
- Check aluminium body for dents or scratches.

## 2 Carriages

- Verify that carriages are secured to motor with bolts and nyloc nuts.
- Roll the carriage within the rail. Verify that each wheel turns freely and the plastic wheel bearing covers not are cracked or missing.

### R2R Turnable Hanger:

- Verify that the centre pin is held secure with a split pin.

### Carriage with brake:

- If applicable, check that the carriage brake assembly tightens and holds.
- Check the brake function of the carriage.

## 3 Emergency Stop function

- Press in the emergency stop button. Verify that it holds and locks in the closed position. If the emergency stop cord is attached, check that it is secured properly.
- With the Emergency Stop button pressed in, check that the motor does not operate when the hand control buttons are pressed.
- Turn the red emergency button in the direction of the arrows. Verify that the button releases from the locked position into the raised, open position.

## 4 Hand control functions

- Check cord for exposed wear or tear in the insulation sleeve.
- Inspect casing for damage, verify dust & water seal is intact.
- With the emergency-stop out, press each button and check for corresponding lift operation.

## 5 Electrical emergency lowering device

- Test the electrical emergency lowering device by pulling down the handle (Likorall 200) or pressing the up and down arrows on the electronic card cover. Check for corresponding lift operation.

## 6 SSP Limit Switch

- Check that the (2) mounting screws secure the micro switch e-card to the motor casing.
- Check function of twist protection.
- With the emergency stop out, move the lifts trap all the way up against the SSP Limit switch. Check that the motor does not operate when touching the SSP Limit switch.

## 7 Lift Strap for visible damage

- Using the hand control, lower the strap to its maximum extension. Inspect the belt for frayed edges, heavy wrinkles or wear-through areas.
- Verify that the Q-link is secure on strap. Slide plastic cover off the Q-link and visually inspect that the lifts trap safety pin is seated securely in the middle recess of the Q-link.

## 8a Mechanical emergency lowering (Likorall 242)

- Attach the sling bar to the lift strap. Make sure the sling bar is correctly mounted.
- Verify the position the red plastic adjustable stop at the top of the Spring magazine. Ensure that the snap-fit is interlocked and secure.
- Apply slight manual downward pressure on the sling bar. Simultaneously pump the red handle on the mechanical emergency-lowering. Verify that the spring action handle lowers and recoils upward and that the strap is let out of the Spring magazine.
- Manually elevate the sling bar so there is no weight on the mechanical lowering assembly. Simultaneously pump the red handle until the strap rewinds up to the red plastic adjustable stop.
- Ensure that the red plastic handle cover is in place.

## 8b Fixed strap-stop (Likorall 242)

- Verify that screws (2) are tight in two-piece assembly
- If requested and/or necessary, reset the strap-stop height according to service manual instructions.

## Instructions for the check points

### 9 TDM & R2R Hook function (Likorall 242 R2R and Likorall 200)

- Manually press and lower the plastic covers and spring assembly away from the aluminium hook. Release the spring assembly and verify that the spring snaps back against the hook, providing a secure snap-fit lock.
- Verify that the screw joints are tight.

### 10 Sling bar

- Visually inspect the sling bar to detect any scratches, sharp edges or deformities.
- Check that the unit rotates freely on its bearings.
- Make sure both safety latch clips are mounted and fall back against the body of the sling bar.
- Verify that the sling bar fasteners are tight.
- On old model of sling bar, made of steel; Verify that the o-ring is present and positioned in the center bolt groove.

### 11 Charger function

- With the emergency stop out, insert the hand control into the wall-mounted charger outlet (110 - 240V). Visually inspect that diode lights on the charger unit and hand control light up according to the User Manual or the Quick reference guide.

## Load testing

### 12 Mechanical lowering load test (50 kg / 110 lbs) (Likorall 242)

- With the emergency stop out, and the strap with the sling bar lowered, secure the weights.
- Using the hand control, raise the weights approximately 10-15 cm (4-6 inch).
- Firmly apply increasing downward pressure on the red emergency-lowering handle until the strap begins to slowly lower the weight to the floor. Remove the weights and rewind the strap to its original position, as described in inspection point 8a.

### 13 Maximum-load test

<b>Likorall 200: 200 kg / 440 lbs</b>
<b>Likorall 240: 180 kg / 400 lbs</b>
<b>Likorall 242: 200 kg / 440 lbs</b>
<b>Likorall 243: 230 kg / 507 lbs</b>
<b>Likorall 250: 250 kg / 550 lbs</b>

- With the emergency stop out, and the strap with the sling bar lowered, secure the weights.
- Using the hand control, raise and lower the weights to maximum and minimum lift heights.
- With maximum load raised to the highest position, make sure the lifts trap does not drift more than 15 cm (6 inch)/ 30 sec.
- Listen for peculiar noises and vibrations.

 Note: Make sure the batteries are fully charged before maximum load test!

If the low-battery alarm sounds during the lift, the battery must be recharged prior to load testing.

If the low-battery alarm sounds during the lift with fully recharged batteries, the batteries must be replaced.

## Documentation

### 14 Information

- Instructions/Instruction guide.
- Quick Reference Guide shall be placed in the intended holder on the Parking panel.

Lift type: .....  
 Prod No: .....  
 Serial No: .....  
 Prod. Year: .....

**Customer Reference:**

Contract No: .....  
 Name: .....  
 Address: .....  
 (Zip Code) .....

**Check points:**

Carriage	Page	Month	12	24	36	48	60	72	84	96	108	120
1 Carriage cleaning	3			<input type="checkbox"/>								
2 Bearing inspection	3		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

Bearing replacement.....  
3

**Motor**

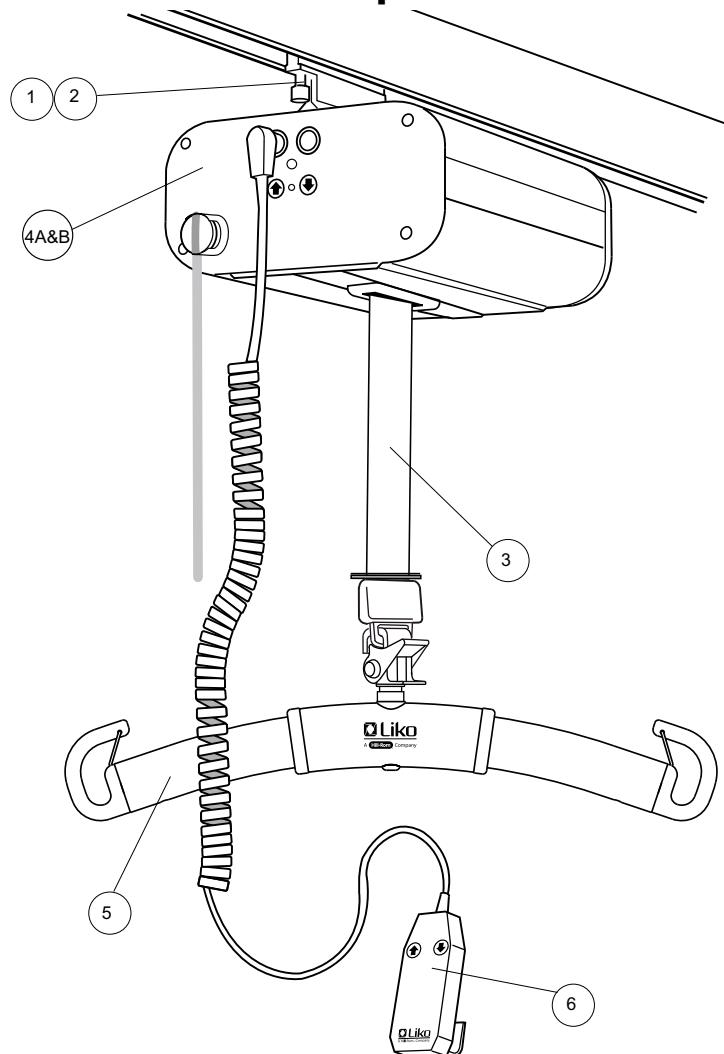
3 Lift strap replacement	3					<input type="checkbox"/>						<input type="checkbox"/>
4 Battery inspection	3		<input type="checkbox"/>									
Battery replacement	3			<input type="checkbox"/>								
5 Sling bar	4		<input type="checkbox"/>									

Interval/Month: \_\_\_\_\_

Date: \_\_\_\_\_

Serviced by: \_\_\_\_\_

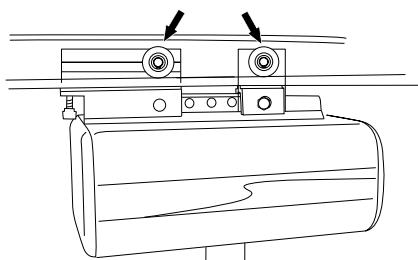
## Check points



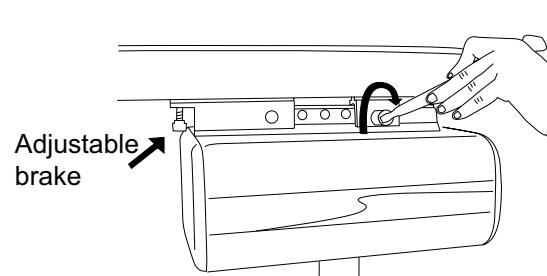
### Instructions regarding the check points for Likorall 200/240/242/243/250

#### 1. Carriage cleaning

Tools required



1. Remove the carriage from the rail and clean the wheels and the inside surface of rails with a moist cloth.



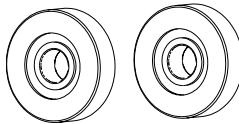
2. Place carriage in rail, mount motor. Tighten carriage screws. Adjust the brake on the carriage (friction brake).

## 2. Bearing inspection and replacement

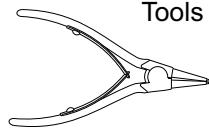
Spare part no:

31290060 Plastic wheel with bearing.

 **Not** for IRC-carriage 3126114 and IRC Traverse Adapter 3102540



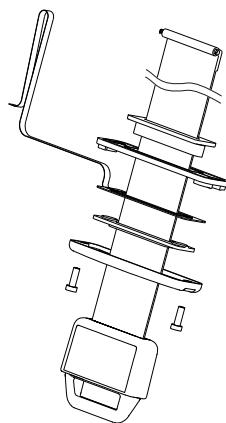
Tools required



***Bearing replacement recommended every 5th year***

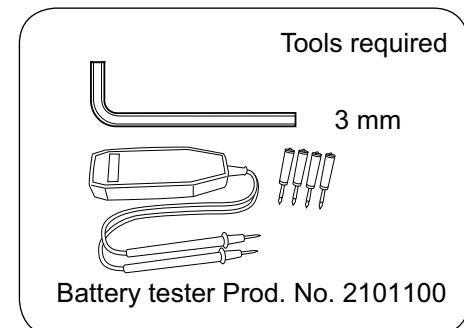
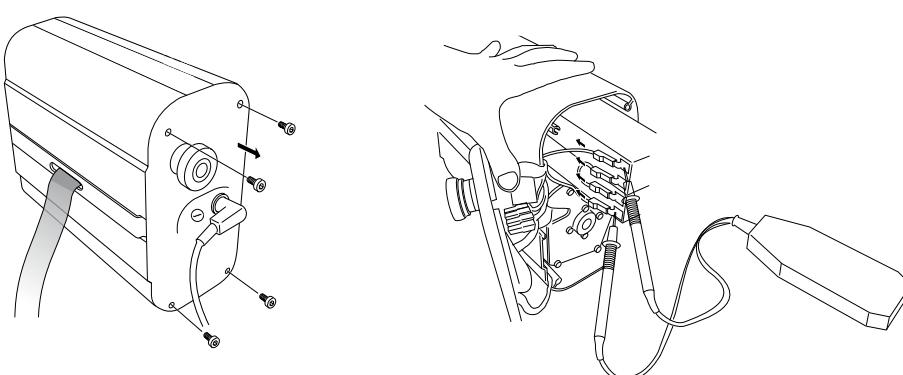
## 3. Lift strap replacement

Spare part no. according to spare part list.



***Lift strap replacement recommended every 5th year***

## 4 Battery inspection and replacement

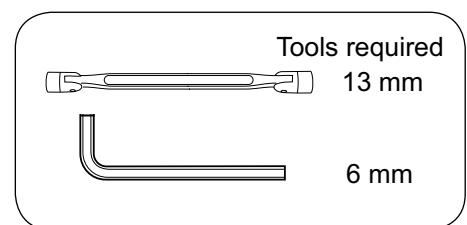
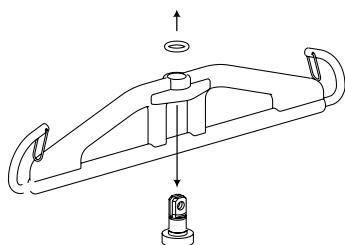
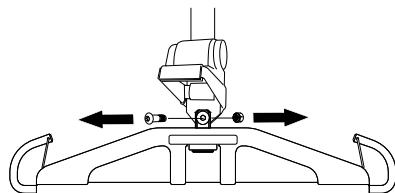


- Remove the cover by unfasten the 4 screws and than pull out the batteries.
- Check the battery with Battery tester Prod. No. 2101100, signal should be audible for more than 5 sec. If not, replace battery with Spare part No. 31290007.
- Replace battery according to assembly instruction for Spare part 31290007.

***Battery replacement recommended every 3rd year***

**5. Sling bar cleaning**

 **Only on old type of slingbar!**



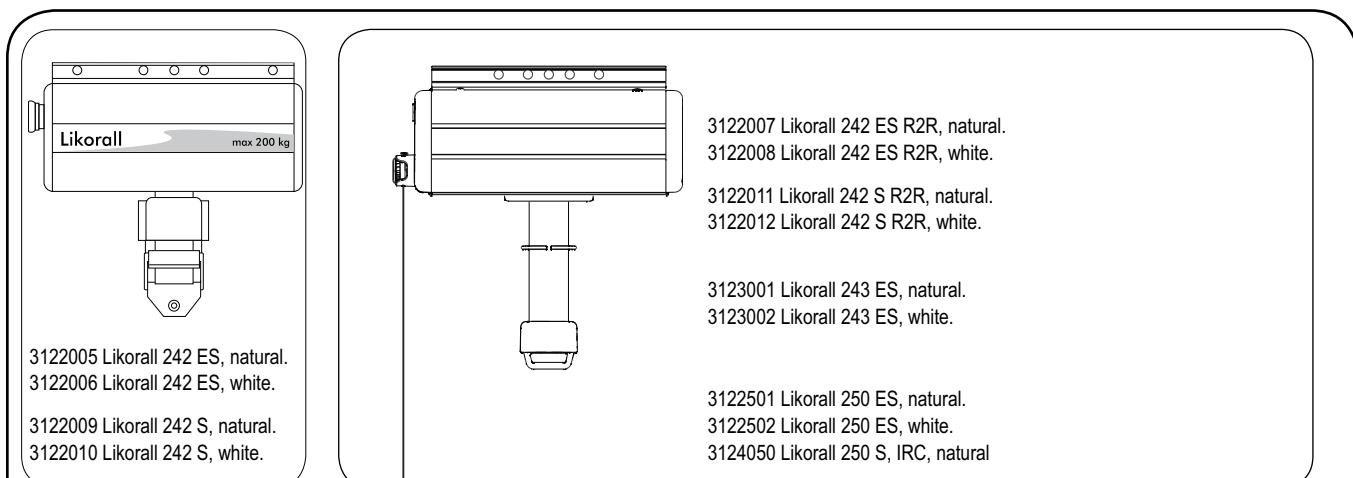
1. Unfasten sling bar from Likorall.

2. Clean sling bar and center bolt on old type of slingbar.

***Cleaning of sling bar and center bolt recommended every year***

**Product changes**
**Prod. No. 3122005-3122502**

2010-06-25


**2010**

<b>Changes</b>	<b>Type</b>	<b>S/N</b>	<b>Project</b>
New type of ceiling lift, prepared for continuous charging through the rail system by In-Rail charging system (IRC)	Likorall 242 S IRC	2001-2500 (pre serial)	1099

<b>Changes</b>	<b>Type</b>	<b>S/N</b>	<b>Project</b>
New cover with integrated emergency stop collar and emergency stop cord. Lift strap equipped with Q-link is now standard on Likorall 243 ES and Likorall 250 ES.	Likorall 242 S Likorall 242 ES Likorall 243 ES Likorall 250 ES	8007961 8100714 8201237 8301629	754
New cover with integrated emergency stop collar and emergency stop cord.	Likorall 242 S (NA) Likorall 242 ES (NA) Likorall 243 ES (NA) Likorall 250 ES (NA)	284580 426991 365346 6601769	

**2007**

<b>Changes</b>	<b>Type</b>	<b>S/N</b>	<b>Project</b>
New version of Electronic card.	Likorall 242 S Likorall 242 ES Likorall 243 ES Likorall 250 ES	8 000 001 8 100 001 8 200 001 8 300 001	560
New version of Electronic card.	Likorall 242 S (NA) Likorall 242 ES (NA) Likorall 243 ES (NA) Likorall 250 ES (NA)	278548 425687 363741 6600301	

## Product changes

Prod. No. 3122005-3122502

## 2005

Changes	Type	S/N	Project
Current limit changed from 10.5A to 11.5A.	Likorall 242 ES	424689	383
Safety Squeeze Protection upgraded with Twist Protection.	Likorall 242 S	267210	156
	Likorall 243 ES	362586	
	Likorall 242 ES	424379	
Hang-Up for Hand control	Likorall 242 S	266387	183
	Likorall 242 ES	424229	
	Likorall 243 ES	362487	